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COLONY OF MAURITIUS

ANNUAL REPORT
ON THE
MEDICAL
AND
HEALTH DEPARTMENT
FOR
1908

MAURITIUS:
STOREKEEPER GENERAL'S PRINTING ESTABLISHMENT.
1909.

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ANNUAL REPORT

ON THE

Medical and Health Department

FOR 1908.

I.—STATISTICS OF POPULATION.

The total estimated population of the Colony on 31st. December 1908 was 374,237 showing a decrease of 2,398 as compared with that of the previous year. The decrease is due in part to an excess of emigration over immigration, but principally to the fact that the deaths during the year exceeded the births by 1,640.

The number of deaths registered during the course of 1908 was 15,096 and the death-rate 40 per mille against 13,037 and a death-rate of 34.7 per mille in 1907. The year under review is comparable in that respect with 1906 when the figures were 15,379 and 40 per mille respectively. The mortality was highest in Port Louis town and district and lowest at Moka. The average death-rate for the ten years ended 1907 was 36.3 per mille.

The birth-rate was 35.7 per mille showing a falling off from that of 1907 which was 37.7 as well as from the average of the previous ten years which was 36.1. Rivière du Rempart was the district which showed the highest and Flacq that which had the lowest birth-rate.

The figures from which the above data were obtained are given in a tabular form in Annexure I (a) kindly supplied by the Registrar General.

II.—PREVALENCE OF SICKNESS.

There was a further and marked increase in the number of patients admitted into the hospitals and asylums of the Colony during the year under review as compared with the two preceding ones. The admissions rose to 27,751 in 1908 against 23,355 and 20,371 in 1907 and 1906 respectively, but contrary to what obtained in 1907, the case-mortality rose to 5.79 o/o being .45 o/o higher than that of the previous year. Concurrently the number of cases treated in the dispensaries increased to 66,077 against 55,635 in 1907.

Judging therefore from the standard of comparison adopted in previous reports, it may be said that the sanitary condition of the Colony during 1908 was inferior to what it had been the year previous as shown by the higher general and hospital death-rates, lowered birth-rate and larger number of attendances both at the hospitals and at the dispensaries. The increased calls for free medical assistance were probably partly due, however, to the financial difficulties through which the Colony has passed as well as to the fact that a larger proportion of the population have now realised the facilities offered by the charitable institutions maintained by Government and are more inclined to take advantage of them.

Malarial Fever :—The admissions for that disease numbered 5,071 in 1908 against 4,272 in 1907.

The cases were returned as follows :—

Quotidian	2,233
Tertian	332
Quartan	46
Irregular	647
Remittent	142
Pernicious	20
Unclassed	1,651

The case-mortality for all types taken together was .93 o/o as compared with 1.06 in the preceding year, a circumstance which seems to point to the fact that the larger number of cases treated was partly at least due to the admission of milder cases which under previously existing conditions would probably not have come to hospital.

Hypertrophy of the spleen :—There were 1,193 admissions for that complaint as compared with 816 in 1907, and a corresponding increase in the deaths from the same cause which rose to 47 against 20 in the previous twelve months. No new fact has come to light of a nature to alter the opinion already expressed that Kala-Azar does not exist in the Colony so that these cases must provisionally at any rate be regarded as malarial in their nature.

Dysentery :—As in the case of the above two diseases the admissions for this complaint show a distinct increase when compared with the preceding year, the figures being 1,605 and 1,286 respectively. There has also been a rise in the case-mortality which has passed from 13.5 o/o to 14.8 o/o.

Enteric Fever :—Sixty-four cases of this disease were treated in the hospitals including two that were admitted at the end of 1907 with 16 deaths or a case-mortality of 25 o/o against 20 admissions and 6 deaths in 1907.

Diphtheria :—Sixteen cases were admitted in the hospitals six of which proved fatal. The admissions for 1907 were 5 with 3 deaths.

Influenza :—A fall is apparent in the admissions for that affection which accounted for 1,051 cases as compared with 1,264 and 1,768 in 1907 and 1906 respectively. The deaths numbered 34.

Pneumonia :—On the other hand the admissions for pneumonia rose from 411 to 508 with a slightly lower case-mortality of 33.8 o/o.

Cerebro-Spinal Meningitis :—A small epidemic of this complaint was observed during the year covered by this report, resulting in the admission into the hospitals of 15 cases, 12 of which terminated fatally.

Beri-Beri :—The epidemic described in the annual report for 1907 showed no tendency to recur during 1908; only 8 new cases were admitted in e very one of which the patient effected a recovery.

Nephritis :—The sustained rise in the admissions for that complaint which has already been recorded in previous reports, was again manifest in 1908. Whereas the cases admitted in the hospitals in 1906 and 1907 numbered 285 and 426 respectively, 669 fresh cases were returned in the year under review from the same Institutions.

Measles :—The epidemic which broke out in 1907 continued during the earlier months of 1908, seventy-two fresh cases being admitted in the hospitals with 5 deaths. This affection was probably answerable for the increased number of admissions for pulmonary complaints during 1908.

Syphilis :—The cases of this disease admitted into the hospitals rose from 463 in 1907 to 563 in 1908. The following table shows the progress of the disease in the Colony during the last 5 years :—

Years.	Admissions.
1904	352
1905	359
1906	433
1907	463
1908	563

Leprosy :—Seventeen cases received temporary treatment in the public hospitals against 20 in 1907. Ten of these belonged to the anæsthetic type and the remaining 7 to the tubercular variety.

Plague :—This disease gave only 17 admissions as compared with 20 in the preceding year. With the exemption of 3 admitted in Souillac hospital the others were limited to the Civil hospital at Port Louis. This as well as the reduced number of admissions corresponded with a reduction both in the total number of cases and of local foci.

Mental Diseases :—The general hospitals received 75 patients suffering from mental disorders previous to their being transferred to the Lunatic Asylum or otherwise provided for. The number of inmates at the Asylum on 31st. December 1908 was 431 a reduction in the number present on the same date in 1907, but there has been an increase in the daily average population of that Institution which passed from 430 in 1907 to 433 in the year under review.

The total number of certified lunatics in the Colony including the patients out on probation and those accommodated in the Lunatic Wards of the Barkly Asylum was 608 in 1908 giving a proportion of one insane in every 615 of the population.

Further details on this subject will be found in the attached report from the Medical Superintendent of the Asylum (Annexure VIII).

III.—METEOROLOGICAL CONDITIONS.

Annexure I (b) kindly supplied by the Director of the Royal Alfred Observatory shows the conditions of temperature, rainfall, humidity, &c., prevalent in 1908.

The total amount of rain collected at the Observatory, 62.43 inches, was above the average. The first four months were wet, March particularly so when the rainfall was 59 o/o above normal.

The mean temperature was 73.6 degrees as compared with 73.1 for the year before and generally speaking the year under review proved a hotter one.

The range between the shade minima and maxima reached 25.3 in 1908 against 23.8 in 1907.

The average degree of humidity was similarly higher, standing at 75.5½ as compared with 74 in the preceding year.

The influence of these unfavourable meteorological conditions upon the public health manifested itself especially during the first half of the year. Following upon the heavy rainfall in December 1907 and January 1908 a rapid rise took place in the number of admissions from malaria in the early part of the latter year. The annual epidemic recurrence of that disease which proved both severe and extensive reached its acme in February but the downpour which accompanied the cyclonic disturbance of February, 29th. and March 1st. was followed by a recrudescence in May which was not sustained however probably owing to the advent of the cool season, after which the incidence of malaria gradually fell until it reached its lowest point in October. The progress of the disease and its relation to the rainfall are graphically shown in Chart No. I.

Chart II illustrates the relation which has long been shown to exist between the rainfall and the incidence of dysentery in the Colony. The curve of admissions for that disease rises with the heavy rains of December 1907 and the first three months of 1908 and the manuring of the fields. It falls during the dryer months of April and May to rise again concurrently with an increase in the amount of rain in June, the apices of the two curves occurring in the same months. This point is worth noting in comparison with the fact that the maxima of the malaria curve are to be found in the second month after the corresponding ones in the rainfall curve, the interval being required for the development and infection of the carrying mosquito.

Chart III shows that contrary to what usually obtains the incidence of bronchitis has been greater during the hotter and wetter months than in the colder portions of the year. The admissions of tuberculosis were very variable during the year and did not appear to bear any relationship to seasonal conditions. They were less numerous in the crop months when work is abundant and the working classes can more readily afford to keep their own sick at home.

IV.—RECURRENCE OF PARTICULAR DISEASES.

Malaria :—The particulars regarding this disease will be found in the special chapter on Malaria (Chapter V).

Dysentery :—The apparent increase in the occurrence of this disease is attributable to the same causes as were active, though in a different manner, in the causation of malaria. The actual type of the disease has not yet been definitely established, but there are indications that many of the cases are of amœbic origin. Although in isolated outbreaks infection may possibly have taken place through the instrumentality of flies or dust, there seems to be good ground for regarding the contamination of the rivers and streams, which serve very generally as sources of water supply, with excremential matter as the principal channel of infection.

Enteric fever :—A further increase is observable in the number of cases of this disease notified under the Infectious Diseases Ordinance of 1898, 229 cases having been registered against 145 in the previous year. If it is stated that the figure for 1907 showed an increase of 80 o/o over that of 1906 it would appear at first sight that typhoid fever is rapidly spreading in the Colony. As explained however in last year's report, this rise in the incidence of the disease is more apparent than real and is probably to be accounted for by greater accuracy of diagnosis principally through the assistance furnished by the Bacteriological Laboratory. In this connection it may be pointed out that in spite of the much larger number of cases notified, the deaths from typhoid have only exceeded by 9 those recorded in 1907. Moreover the death-rate from that cause for all notified cases which was 25.5 o/o in the latter year fell to 15.7 o/o in 1908 a fact which tends to show that owing to greater facilities of diagnosis many milder cases were notified which would otherwise have escaped registration. For purposes of comparison with previous reports the following table is inserted showing the distribution of the cases in each month and in each district :—

Months.	Districts.									Total.
	Port Louis.	Pamplemousses.	Rivière du Rempart.	Flacq.	Grand Port.	Savanne.	Plaines Wilhems.	Black River.	Moka.	
January ...	1	...	3	...	...	1	7	...	3	15
February ...	1	...	2	...	...	...	7	...	1	11
March ...	2	...	3	...	1	...	8	...	6	20
April ...	1	...	3	...	1	...	5	...	4	14
May ...	1	1	2	1	...	4	4	...	2	15
June ...	2	...	4	1	1	2	4	...	3	17
July ...	2	...	6	...	2	2	5	...	4	21
August ...	4	...	3	1	...	1	3	...	7	19
September ...	1	...	2	...	4	1	10	...	9	27
October ...	9	...	7	2	1	4	4	...	4	31
November ...	5	...	1	2	2	1	7	...	2	20
December ...	...	...	5	4	2	3	3	...	2	19
Total ...	29	1	41	11	14	19	67	...	47	229

The districts most affected were Plaines Wilhems, Moka, Rivière du Rempart and Port Louis, the first heading the list as usual. On the whole the cases were pretty evenly distributed throughout the year with a tendency perhaps to be slightly more numerous during the second half. There was an absence of explosive outbreaks. The disease appeared in the form of scattered cases or small groups of cases, the original source of infection remaining usually obscure or undiscoverable. The impression which is derived from a study of these occurrences is that the infection was principally kept up and disseminated through the agency of bacilli carriers.

In connection with this subject it may be as well to mention that it is not unfrequent to meet with cases of more or less continued fever refractory to quinine with no malarial parasites in the blood, and in which Widal's reaction is negative. These cases which appear to be neither malarial nor typhoid in their nature seem to point to the existence in the Island of a febrile affection or affections, possibly similar to the unclassified fevers of India, regarding which it is to be hoped more accurate knowledge will be acquired with the assistance of the Bacteriological Laboratory.

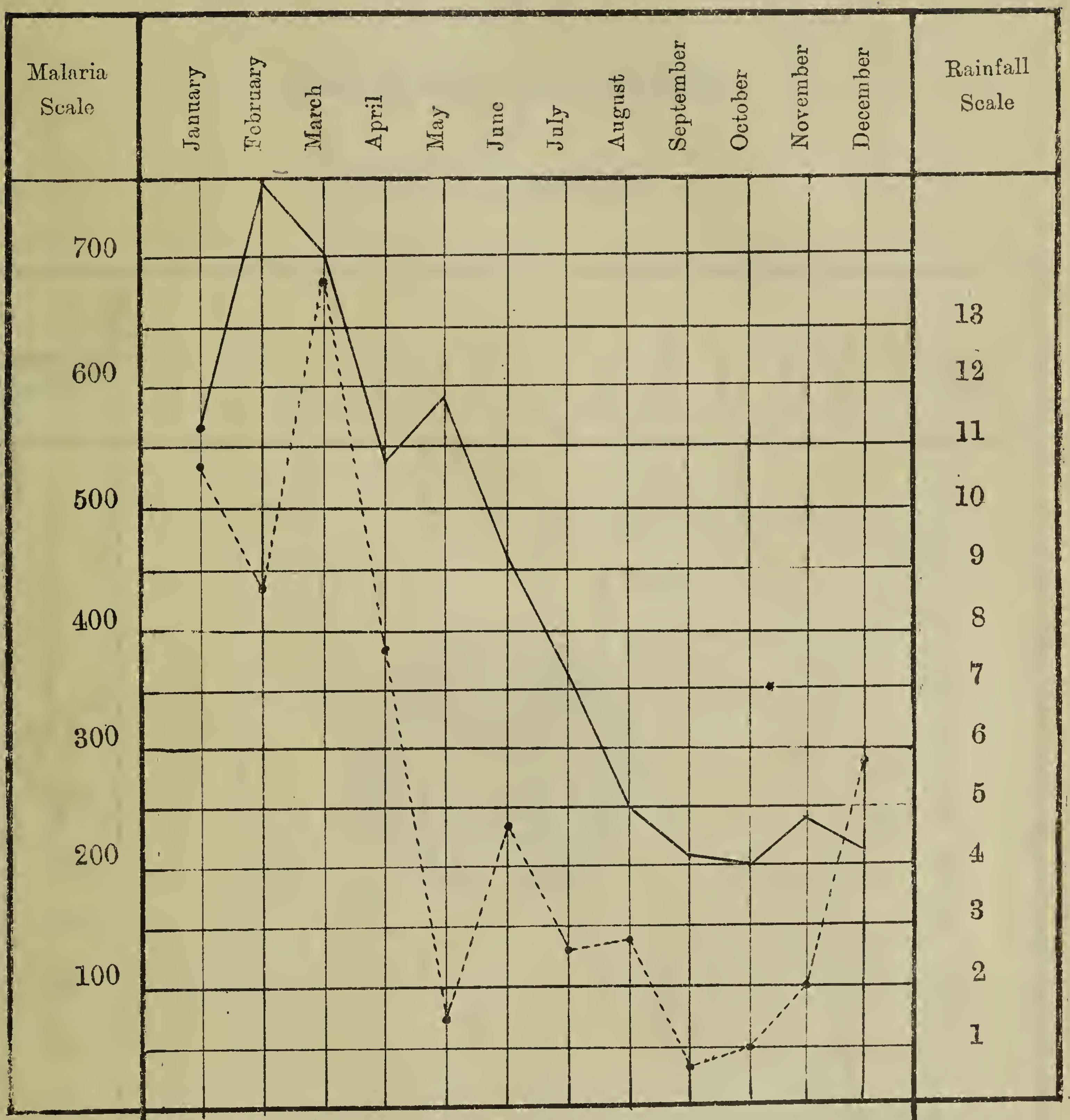
Diphtheria :—The cases of diphtheria notified during the year rose to 114 against 60 in 1907. Although as in the case of enteric fever this increase is no doubt partly due to greater accuracy of diagnosis yet the higher fatality of the disease (14 deaths were ascribed to that cause) is probably an index of actual enhanced prevalence. The districts most affected were Plaines Wilhems, Moka and Port Louis. Anti-diphtheritic serum from the Lister Institute was supplied by Government to all who applied for it, no charge being made in the case of persons unable to pay. A certain quantity is always kept in readiness at the Bacteriological Laboratory to permit of the early application of the treatment whenever necessary after examination of the preparations.

Measles :—The epidemic of measles referred to in the report for 1907 continued during the year under review. The outbreak was at its height in January when 162 cases were registered, but rapidly abated until by the end of the year it had practically disappeared. The total number of cases notified to this Department was 476 with 27 deaths or a mortality of 5.6 o/o. The districts most affected were those of Plaines Wilhems, Savanne and Grand Port.

I

Chart showing monthly Admissions for Malaria and monthly Rainfall

1908.



Admissions	563	750	705	533	588	455	362	250	209	201	240	215
Rainfall	10.70	8.77	13.74	7.90	1.44	4.83	2.65	2.71	0.66	1.04	2.08	5.91

Admissions = ————————

Rainfall = - - - - - - - - - - -

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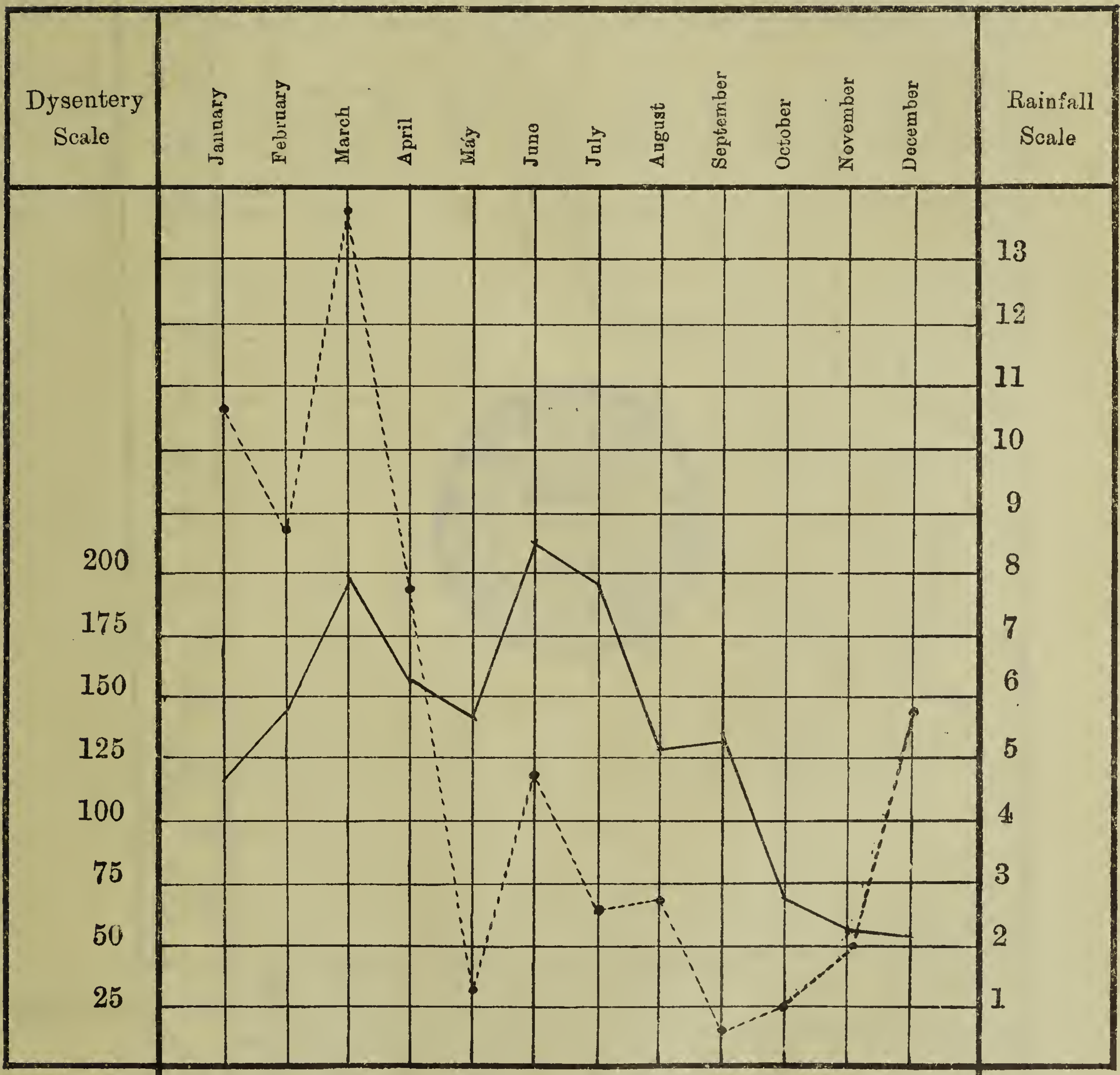
II

Chart showing monthly Rainfall and Admissions for Dysentery.



	January	February	March	April	May	June	July	August	September	October	November	December
Admissions	117	147	201	156	140	214	196	127	128	69	56	54
Rainfall	10.70	8.77	13.74	7.90	1.44	4.83	2.65	2.71	0.66	1.04	2.08	5.91

Admissions for Dysentery = ————————

Rainfall = - - - - - - - - - - - -

Seamen's Hospital Society
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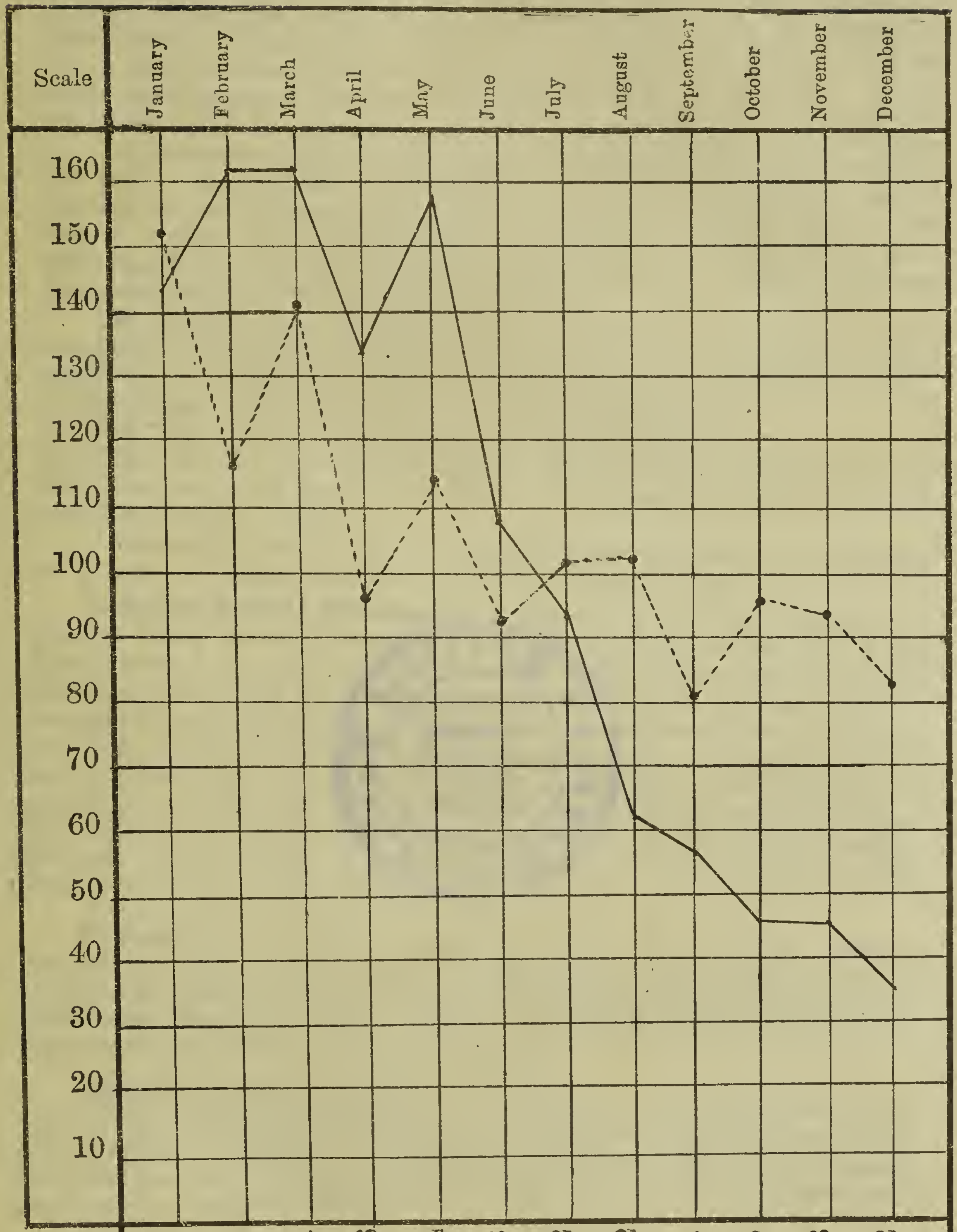
III

Chart showing monthly Admissions for Tuberculosis & Bronchitis.



	January	February	March	April	May	June	July	August	September	October	November	December
Admissions: Tuberculosis	152	115	141	96	114	93	102	102	81	95	93	82
Do. Bronchitis	143	161	161	133	157	109	94	61	58	45	45	35

Tuberculosis = ————————

Bronchitis = - - - - - - - - - - -

Seamen's Hospital Society ★
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Plague :—The total number of cases recorded during the year was 167 showing a reduction of 57 upon that for the preceding year. The annual epidemic recurrence was slow in asserting itself and it was not until September that the disease can be said to have become prevalent. As a consequence the epidemic only reached its maximum in November instead of October as is usually the case. In spite of a somewhat virulent recrudescence at Port Louis it is satisfactory to note that the tendency to decline manifested by plague since 1906 has been maintained, the epidemic of 1908 being the smallest registered since 1899. Moreover with the exception of two small outbreaks at Souillac and at The Mount and Mon Goût (Pamplemousses), the disease has been entirely confined to the districts of Port Louis and Plaines Wilhems which may be regarded as the only two indigenous foci in existence. In view of the small number of cases (6) detected in the latter district, the hope may not unreasonably be entertained that it may before long be rid of the scourge.

In the course of the year the lazaret at Souillac had to be reopened for a few weeks. The number of admissions at the Port Louis Lazarets was 64. Towards the end of December Bois Savon Lazaret was closed and for the sake of economy the plague hospital and segregation camp at Grand River were organised for the accommodation of plague cases and contacts from Port Louis and Plaines Wilhems until further orders.

The campaign was conducted on the same general lines as before, special prominence being given to the destruction of rats and disinfection of contaminated and insanitary premises. The total amount spent on plague measures generally during the calendar year was Rs. 120,827.93.

The number of rats destroyed by the Health Department was 81,958 at Port Louis and 90,546 in the rural districts, giving a total of 172,504 against 125,558 in 1907. Of these 11,518 were microscopically examined and 234 were found plague infected.

Annexures III and IV give the usual detailed statistical data regarding the progress of plague in the Colony during the past ten years.

Cerebro-Spinal Meningitis :—Twenty cases of this affection were reported during the year. Although it had not previously been unknown in the Colony where it was probably introduced from India, it is the first time it has ever assumed anything like epidemic form. It has accordingly been added to the diseases notification of which is compulsory. Cases were observed in the prisons at Port Louis, Plaines Wilhems and Savanne and in private practice in the same districts and at Rivière du Rempart. It manifested no marked tendency to spread, but in such cases as were discovered it showed the same high degree of fatality as is usually associated with the disease in other countries, 16 out of 20 cases ending in death or a mortality of 80 o/o. The cases were more numerous during the first half of the year.

Influenza :—This disease which for some years past has assumed epidemic prevalence annually, made its appearance in the colder months of 1908, but as already stated and for reasons little known though probably connected with climatic conditions, has not prevailed with the same intensity as before during the period covered by this report.

Bronchitis & Pneumonia :—Contrary to what might have been expected from the foregoing paragraph, bronchitis and pneumonia have been more prevalent in 1908 than the year before. This is probably to be accounted for by the fact that in many cases these affections may have been late complications of an attack of measles.

Beri-Beri :—This disease showed no tendency to recur in epidemic form. In addition to the cases admitted in the public hospitals and already referred to in Chapter II a few scattered cases were reported by private medical practitioners. These cases were too few and disseminated to permit of definite conclusions being drawn as to their probable cause.

Nephritis :—This affection, whatever may be its ætiology, is steadily on the increase in the Island. It is to be hoped that clinicians and bacteriologists will unite in their endeavours to trace it to its as yet obscure causes.

Scarlet Fever :—Two cases of this affection were notified, one at Port Louis and the other at Moka. They were both of a mild type. Doubts are still being entertained as to the identity of the disease as observed here with true scarlatina.

Erysipelas :—This disease assumed some epidemic prevalence during the year, 73 cases being notified with 16 deaths.

Leprosy :—From information kindly furnished by the Poor Law Commissioner it appears that little change has taken place in the number of lepers maintained at the St. Lazare Asylum at the expense of Government. This as previously mentioned is no criterion of the progress of the disease in the Island as segregation in the asylum is not compulsory, but when taken in conjunction with the fact that the year 1908 has been financially a difficult one for a large proportion of the population, it seems at any rate to indicate that the affection is not on the increase.

Surra :—Occasional cases of this epizootic among equines and bovines were reported during the year, but it has on the whole been less prevalent than in 1907.

V.—MALARIA.

As stated in Chapter IV the Colony has suffered from a widespread and rather severe visitation of this disease during the year under reference. For the first time for many years the number of admissions in the hospitals did not show the usual alternance noted in previous reports as shown in the following tabular statement :—

Years.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.
Admissions	4,152	2,848	4,182	3,360	4,788	3,039	5,123	3,674	4,272	5,071

The admissions (5,071) were the largest recorded during the past ten years with one exception and nearly equalled those of 1905 which reached 5,123. This is no doubt to be explained by the heavy rains of the earlier and hotter months of the year, the higher average temperature and higher degree of humidity, but much of this unfortunate state of things was however probably also brought about by the financial stringency which was such a marked feature in the history of the Island. A further argument in support of this view is to be found in the increased number of cases of splenic enlargement due apparently entirely to chronic malaria that claimed admission. These cases were probably due to old standing infection and would under other circumstances not have come to hospital at all.

Allowing for this, the year under review must still I think be regarded as a bad one in respect to malaria. On comparing the figures for the year with those given by Prof. Ross for the period 1900-06 it is found that the death-rate from that cause rose from 14.0 to 15.5 per mille of the population and that the ratio of malarial deaths to total deaths was 38.6 o/o against 31.0 o/o. Similarly the number of cases of malaria treated at the hospitals and dispensaries in 1908 reached 30,458 against 28,294 in the preceding year.

Every effort was made that could be made with the means at the disposal of the Department to cope with the requirements of the situation.

The following major works were carried out during the year :—

(a) The drainage works at Clairfond, Phœnix, were completed. The total amount spent on these works has been Rs. 27,897 of which Rs. 14,660.58 were derived from the funds contributed by the War Department.

(b) A large extent of wooded and swampy ground at Mon Plaisir was reclaimed and dried by the construction of 950 feet of drains which were connected with those already constructed, thus terminating the important works undertaken in that area.

(c) Pamplemousses river along a portion of its course through the village of the same name, was canalised and its banks roughtrained.

In June 1908 the Council of Government voted Rs. 5,500 for certain anti-malarial works to be undertaken during the financial year 1908-09 part of which sum was spent on the works mentioned at (b) and (c).

By prison labour and with the funds voted for minor sanitary works the rivers of Curepipe, Vacoas, Phœnix, Rose Hill, Centre of Flacq and the streams in the extra-urban portion of Port Louis were cleaned and in part canalised. A large area of waste lands in the town of Port Louis itself, the owners of which could not be discovered, were cleared of bush and excavations in them filled up or drained. With the consent and under the supervision of the Woods and Forests Department the banks of the water courses abovementioned were cleared of excess of vegetation and graded.

Important drainage works were commenced at La Louise, Quatre Bornes, by cutting trenches for the drainage of extensive marshes in the neighbourhood of that town.

Prof. Ross' visit to this Colony came to an end on February 25th., 1908, but the mosquito-brigade work which had been initiated meanwhile was continued under the supervision of Mr. d'Emmerez de Charmoy with ten "moustiquiers" and a number of labourers at a cost of Rs. 7,898.10. Much good work was done by these gangs in looking for and destroying mosquito breeding places, but owing to their small number as compared with the extent of country to be covered, their action which has been confined practically to some of the more populous areas only could exercise but little influence over the general incidence of the disease. They will, however, prove very useful as a trained nucleus for a more comprehensive organisation when Prof. Ross' recommendations are carried into effect.

Every effort was made to maintain the drainage channels at Clairfond in the highest state of efficiency and although anopheles mosquitoes were still to be found in small numbers in the locality, there was no indication at the close of the year of any return among the civil population of the epidemic which had prevailed with such intensity during the previous malarial season.

The works undertaken during the year are tabulated in Annexure V.

Quinine was distributed free from 35 depots established in the more malarious localities and from the public dispensaries. Arrangements were also made to permit of Government servants receiving salary at the rate of Rs. 720 and under being supplied with the drug free of charge from the hospital and dispensaries. The total quantity of the drug issued from the Medical Stores during the year was 414 lbs. 15 oz. 39 grs. worth Rs. 5,055.26.

Prof Ross' report having been received, copies were presented to the members of the Council of Government, the Municipal bodies and persons likely to take an active interest in the subject, and steps were taken to carry out such of the Malarial Expert's recommendations as were within the means at the disposal of this Department. Two moustiquiers were specially told off for work in Port Louis district and the number of malaria gangs suggested by Prof. Ross for the extra-urban portion of the district, of which the Department has sanitary charge, were organised with the labourers already employed by the Sanitary Branch. Rs. 400 having been allowed by Government for the purchase of spleen census registers, preparations were being made at the close of the year with the kind assistance of the Immigration and Education Departments for:—

(a) The periodical examination and quinine treatment of children in schools and on estates.

(b) The continuous treatment of fever patients on the latter.

(c) A house-to-house spleen census at Port Louis and the distribution of quinine to the occupants.

VI.—VACCINATION.

The number of children vaccinated at the public vaccine stations was 11,638. Among these 11,501 were successfully vaccinated while the operation proved unsuccessfully in 47 and the result could not be ascertained in the case of the remaining 90. The proportion of successes was therefore 98.87 o/o of the total number vaccinated and this proportion would be still higher (99.6 o/o) if the 90 cases in which the result has remained unknown were left out of account.

The children vaccinated by the public vaccinators represented over 86 o/o of the births during the year and their number exceeded by 1,124 that for the preceding year, in spite of the reduced birth-rate.

VII.—SANITARY ADMINISTRATION.

The information usually supplied under this heading will be found in Annexure VI which contains statements in a condensed form of the work done in the Sanitary and Building Branches of the Department.

VIII.—HOSPITALS, ASYLUMS AND DISPENSARIES.

In spite of the financial embarrassments of the Colony the Hospitals and Asylums already in existence all continued to be maintained by Government. As already stated the free medical assistance afforded to the sick poor was fully taken advantage of by the population, the total number of admissions rising from 23,355 in 1907 to 27,751, and many hospitals were unduly full for a longer or shorter period during the unhealthier portion of the year.

The following tabular statement furnishes the usual statistical information with regard to these institutions including the five hospitals attached to the different jails of the Colony:—

Institutions.	Remaining at end of 1907.	Admissions.	Deaths.	Total No. of Cases treated.	Remaining at end of 1908.	Remarks.
Civil Hospital ...	180	7,174	539	7,354	179	
Port Louis Prisons...	22	1,454	11	1,476	14	
Long Mountain ...	22	909	68	931	14	
Poudre d'Or ...	32	1,909	83	1,941	24	
Flacq ...	40	2,407	136	2,447	32	
Flacq Prisons ...	1	86	5	87	4	
Mahebourg ...	39	3,740	200	3,779	42	
Souillac ...	21	1,389	87	1,410	29	
Souillac Prisons ...	4	191	7	195	1	
Barkly Asylum ...	176	4,832	338	5,008	147	
Lunatic Asylum ...	14	489	32	503	19	
Beau Bassin Prisons	29	1,605	68	1,634	19	
Reformatory ...	4	218	5	222	2	
Moka ...	24	1,348	62	1,372	25	
Total ...	608	27,751	1,641	28,359	551	

The Dispensaries afforded relief to 66,077 patients against 55,635 in 1907. With a view to relieve distress and prevent overcrowding of the hospitals at a time when sickness was at its highest, the dispensary medical officers were authorised by Government with the concurrence of the Poor Law Commissioner, to issue beef, bread and other necessaries of life to the destitute sick.

The number of these institutions was at first increased to 29 by the opening of a temporary dispensary at Black River, but towards the end of the year it was found possible to close the Pouce Street Dispensary at Port Louis, the necessity for which had greatly diminished since the transfer of the Central Dispensary to its present location in Rempart Street.

IX.—MISCELLANEOUS.

Port and Quarantine Work :—During the year 208 vessels were boarded by the Health Officer. Of these 176 were offered immediate pratique, but 21 refused and performed their operations in quarantine because of the existence of plague in the Colony.

Of the 32 vessels placed in quarantine 14 were only detained a short time for purposes of disinfection, the cabin passengers being in most cases allowed to land at once on giving a satisfactory reference ashore. The remaining 18 were detained for a variable time to complete the quarantine period to which they were liable.

Revaccination of passengers and crews was resorted to in the case of 6 vessels quarantined for small-pox, the total number of persons so dealt with being 241.

The Harbour Disinfecting Station was utilised on 20 different occasions for the disinfection of incoming and outgoing passengers.

Cannoniers Point Quarantine Station was occupied for 5 days for the accommodation of the passengers ex S. S. " Wardha ". Flat Island Station was not used during the year.

Laboratory Work :—The work done at the Bacteriological Laboratory has formed the subject of reports by Dr. Lafont which have been transmitted to Government. The Laboratory was transferred in December 1908 from its temporary location in the outbuildings of La Malmaison at St. Pierre to its permanent premises on the grounds of Le Réduit.

A summary of the chemical analyses made by the Government Analyst is given in Annexure IX.

Departmental:—It is with profound regret and a deep sense of the loss sustained by this Department that I have to record here the untimely death of Dr. Lorans who had proceeded to Europe on sick leave for six months. Finding his health seriously impaired, Dr. Lorans had, before the expiration of his leave, to resign his position at the head of the Medical and Health Department, but he was not destined to enjoy the rest he had so well earned by his untiring devotion to duty and unceasing exertions for the public good.

L. G. BARBEAU,

M.B.C.M., Edin : D.P.H., Lond.,
Acting Director.

ANNEXURE I.

(a)

RETURN OF THE STATISTICS OF POPULATION FOR THE YEAR 1908.

	Europeans, Whites, Mixed and Coloured.	Africans.	Indians.	Chinese.	Total.
Number of inhabitants on 31.12.07 ...	105,060	2,338	263,983	5,254	376,635
Births during the year 1908.	3,849	...	9,607	...	13,456
,, Deaths ,, ,, 1908.	4,044	28	10,922	102	15,096
,, Immigrants ,, 1908.	2,184	...	971	349	3,504
,, Emigrants ,, 1908.	1,622	...	2,089	551	4,262
Number of inhabitants on 31.12.08 ...	105,427	2,310	261,550	4,950	374,237
Increase or	367	...	...	...	367
Decrease	...	28	2,433	304	2,398

(b)

METEOROLOGICAL RETURN FOR THE YEAR 1908.

MONTHS.	TEMPERATURE.						RAINFALL.	Degree of Humidity.	WINDS.		REMARKS.
	Solar Maximum.	Minimum on Grass	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.		General Direction.	Average Force.	
January ...	*160.3°	63.6°	88.1°	68.1°	20.0°	78.6°	10.70	81.8 %	E.b.S.	9.5	The rainfall for the whole Island was 59 o[o above normal in March owing to the Cyclone of Feb. 29—March 1. The months of Sept. and Oct. were exceptionally dry being 65 o[o and 51 o[o below normal respectively.
February ..	156.1	59.0	87.9	65.5	22.4	77.6	8.77	76.4	S.E.	11.0	
March ...	157.9	56.7	86.0	65.6	20.4	76.8	13.74	79.7	E.S.E.¾ E.	13.8	
April ...	155.8	54.7	85.8	63.0	22.8	75.4	7.90	76.0	E.b.S.	10.5	
May ...	155.5	51.7	82.6	62.6	20.0	72.9	1.44	77.2	E.S.E.½ S.	9.5	
June ...	142.1	48.6	81.7	57.7	24.0	69.7	4.83	76.5	E.S.E.¾ E.	11.2	
July ...	143.4	46.8	76.6	53.8	22.8	67.6	2.65	74.9	E.S.E,½ E.	12.4	
August ...	145.9	48.0	79.5	55.8	23.7	69.1	2.71	76.2	E.S.E.¼ E.	11.3	
September.	154.8	50.4	80.5	58.9	21.6	70.1	0.66	70.0	E.b.S.	11.7	
October ...	154.4	48.4	82.9	57.6	25.3	72.4	1.04	70.1	E. ½ S.	9.9	
November .	166.2	55.1	87.5	63.4	24.1	75.1	2.08	72.3	E. ½ S.	10.6	
December..	162.0	59.0	89.1	68.1	21.0	77.9	5.91	75.5	E.N.E. ½ E.	7.5	
Year ...	166.2 Nov. 12	46.8 Jly. 14	89.1 Dec. 3	53.8 Jly. 14	25.3 Oct.	73.6	62.43 7.64 Mch. 1	75.5½	E.S.E.½ E.	10.7	

* The temperature in the Sun's Rays has been referred to a new Standard: A correction of—9°.5 should be applied to render the observations for 1908 comparable with previous years.

ANNEXURE II.

ANNUAL RETURN

OF

DISEASES AND DEATHS, &c.,

DURING THE YEAR 1908.

HOSPITALS :

1. Civil Hospital.
2. Port Louis Prisons Hospital.
3. Long Mountain „
4. Poudre d'Or „
5. Flacq „
6. Flacq Prisons „
7. Mahebourg „
8. Savanne „
9. Savanne Prisons „
10. Barkly Asylum „
11. Lunatic Asylum „
12. Beau Bassin Prisons „
13. Reformatory „
14. Moka „

GENERAL DISEASES.

Diseases.	Remaining at end of 1907.	Yearly Total		Total cases treated.	Remaining at end of 1908.	Remarks.
		Admissions.	Deaths.			
Small Pox	...	...	...	...	...	
Chicken Pox	...	15	...	15	1	
Measles	5	72	5	77	...	
Scarlet Fever	...	...	...	...	...	
Dengue	...	...	...	...	...	
Cholera	...	...	...	...	...	
Yellow Fever	...	...	...	...	...	
Beri-Beri	3	8	...	11	5	
Yaws	...	...	...	...	...	
Influenza	16	1,051	34	1,067	23	
Diphtheria	...	16	6	16	...	
Febricula	...	2	...	2	1	
Enteric Fever	2	62	16	64	4	
Dysentery	41	1,605	245	1,646	22	
Plague	...	17	10	17	...	
Malarial Fever :—						
(a) Intermittent Quotidian	21	2,233	14	2,254	27	
Tertian	9	332	1	341	1	
Quartan	...	46	1	46	...	
Irregular	3	647	5	650	5	
Type undiagnosed	17	1,651	3	1,668	6	
(b) Remittent ...	13	142	14	155	...	
(c) Pernicious ...	...	20	10	20	...	
Hæmoglobinuria ...	...	3	...	3	...	
Erysipelas	2	68	13	70	1	
Pyæmia	...	2	2	2	...	
Septicæmia	...	5	3	5	...	
Tetanus	...	9	4	9	1	
Tubercle	53	1,266	344	1,319	58	
Gonorrhœa	9	356	...	365	9	
Hydrophobia	...	...	...	...	...	
Scurvy	...	24	...	24	2	
Parotitis	...	32	...	32	1	
Pertussis	...	...	...	...	...	
Rheumatic Fever ...	1	19	1	20	...	
Rheumatism	10	648	...	658	8	
Gout	...	2	...	2	...	
Leprosy :—						
(a) Tubercular ...	...	7	...	7.	...	
(b) Anæsthetic ...	...	10	...	10	...	
(c) Mixed	...	...	...	...	...	
Syphilis :—						
(a) Inherited ...	6	21	5	27	...	
(b) Primary	4	179	...	183	6	
(c) Secondary ...	3	225	1	228	2	
(d) Tertiary	6	136	6	142	7	
Alcoholism	...	2	...	2	...	
Delirium Tremens ...	...	...	...	...	...	
Anæmia	14	584	7	598	10	
Debility	15	694	155	709	11	
Diabetes Mellitus ...	4	34	4	38	1	
Diabetes Insipidus ...	...	1	...	1	...	
New Growth :—						
(a) Non Malignant ...	1	71	...	72	3	
(b) Malignant ...	2	57	11	59	3	
Cerebro-Spinal Meningitis	...	15	12	15	...	
Hæmophilia	1	...	...	1	...	
Purpura	...	1	...	1	...	
Starvation	...	21	...	21	...	
Senectus	8	98	4	106	2	
Phagedæna	...	2	...	2	...	
Carried over ...	269	12,511	936	12,780	220	

LOCAL DISEASES.

Diseases.	Remaining at end of 1907.	Yearly Total		Total cases treated.	Remaining at end of 1908.	Remarks.
		Admissions.	Deaths.			
Brought forward...	269	12,511	936	12,780	220	
Diseases of the Nervous System.						
Section 1 :—						
Neuritis	...	6	...	6	...	
Meningitis	1	17	15	18	2	
Myelitis	...	16	4	16	1	
Locomotor Ataxia	1	6	...	7	...	
Hydrocephalus	...	3	...	3	...	
Encephalitis	...	...	...	...	...	
Congestion of Brain	...	7	5	7	...	
Abscess of Brain	...	5	3	5	...	
Cerebral Hæmorrhage	2	15	10	17	1	
Parencephalia	...	1	1	1	...	
Cerebral Hernia	...	1	...	1	...	
„ Sclerosis	1	1	1	2	...	
Section 2 :—						
Paralysis	3	58	2	61	3	
Epilepsy	8	108	2	116	1	
Chorea	...	3	...	3	...	
Neuralgia	2	78	...	80	...	
Torticollis	...	2	...	2	...	
Hysteria	2	12	...	14	1	
Neurasthenia	...	28	...	28	1	
Spasm of Muscles	...	1	...	1	...	
Cephalalgia	...	1	...	1	...	
Section 3 :—						
Idiocy	...	21	...	21	...	
Mania	1	39	...	40	1	
Melancholia	...	2	...	2	...	
Dementia	...	9	...	9	...	
Delusional Insanity	...	2	...	2	...	
General Paralysis	...	2	...	2	...	
Diseases of the Eye.						
Conjunctivitis	4	68	...	72	...	*Panophthalmitis ... 4 Amaurosis ... ... 3 Glaucoma ... ... 10 Ectopion ... ... 2 Dacryocystitis ... 8 Nyctolopia ... ... 1 Hemeralopia ... 1 Pigmentation of Crystalloid ... ... 3 Symblepharon ... 1 Ulcer of Cornea ... 5 Hypermetropia ... 1 Degenerescence of Crystalloid ... 1 Hernia of Iris ... 1 Hypopion ... ... 1 Leucoma ... ... 2 Exopthalmia... ... 1 45
Keratitis	1	69	...	70	2	
Iritis	..	23	...	23	1	
Retinitis	...	4	...	4	...	
Cataract	6	139	...	145	4	
Ophthalmia Tarsi	1	20	...	21	...	
Staphyloma	1	2	...	3	...	
Other Disases*	...	45	...	45	...	
Diseases of the Ear.						
Otitis	1	65	1	66	...	
Necrosis	...	...	...	...	...	
Abscess	1	6	1	7	...	
Mastoiditis	...	3	...	3	...	
Deafness	...	1	...	1	...	
Diseases of the Nose.						
Epistaxis	...	5	...	5	...	
Rhinitis	...	10	...	10	...	
Diseases of the Circulatory System.						
Pericarditis	...	6	3	6	...	†Thrombosis ... ... 2 Tachycardia ... ... 2 Congenital Heart Disease ... ... 1 Hyaline Degeneration 1 Myocarditis ... ... 4 Adherent Pericardium 1 Chronic Aortitis ... 1 Varicose Veins ... 1 13
Hypertrophia Cordis	...	17	5	17	1	
Valvular disease :—						
(a) Aortic	1	51	9	52	1	
(b) Mitral	5	158	46	163	3	
(c) Tricuspid	...	1	1	1	...	
Aneurysm	...	1	...	1	...	
Phlebitis	...	3	...	3	...	
Arterio Sclerosis	...	19	4	19	1	
Other Diseases†	1	12	4	13	...	
Carried over ...	312	13,683	1,053	13,995	244	

LOCAL DISEASES.

Diseases.	Remaining at end of 1907.	Yearly Total		Total cases treated.	Remaining at end of 1908.	Remarks.
		Admissions.	Deaths.			
Brought forward...	312	13,683	1,053	13,995	244	
Diseases of the Respiratory System.						
Asthma	2	200	...	202	8	
Laryngitis	...	8	...	8	...	
Bronchitis	16	1,202	35	1,218	8	
Pneumonia	9	508	175	517	17	
Pleurisy	1	35	3	36	2	
Hæmoptysis	...	6	...	6	...	
Empyœma	1	4	...	5	...	
Bronchiectasis	...	1	...	1	1	
Gangrene of Lungs ...	...	2	1	2	...	
Congestion of Lungs ...	...	3	3	3	...	
Suppurated Perichondistis	...	1	...	1	...	
Diseases of the Digestive System.						
Stomatitis	2	56	1	58	...	
Tonsillitis	...	36	...	36	...	
Dyspepsia	1	197	...	198	3	
Gastritis	...	62	...	62	...	
Gastralgia	2	179	...	181	...	
Ulcus Ventriculi ...	...	3	2	3	...	
Enteritis	3	144	23	147	3	
Appendicitis	1	20	2	21	1	
Hernia	2	49	1	51	...	
Hæmorrhoids	...	94	...	94	1	
Fistula in Ano... ...	...	42	...	42	3	
Hepatitis	2	126	3	128	1	
Cirrhosis of Liver ...	3	94	14	97	3	
Suppuration of Liver...	1	52	18	53	1	
Biliary Calculus ...	...	3	...	3	...	
Peritonitis	...	22	13	22	2	
Diarrhœa	5	521	19	526	4	
Colic	1	44	...	45	1	
Constipation	...	51	...	51	...	
Other Diseases ...	2	122	12	124	3	
Diseases of the Lymphatic System.						
Splenitis	...	6	...	6	...	
Hypertrophia Splenis...	33	1,193	47	1,226	17	
Adenitis	3	93	...	96	4	
Lymphangitis ...	1	51	...	52	...	
Lymphangiectasis ...	...	...	...	...	...	
Goitre	...	2	...	2	...	
Diseases of the Urinary System.		...				
Nephritis	13	669	134	682	18	
Pyelitis	...	3	...	3	...	
Cystitis	1	117	2	118	5	
Calculus	...	10	...	10	1	
Urinary Fistula ...	1	27	1	28	2	
Incontinence of Urine...	...	3	...	3	...	
Dysuria	...	1	...	1	...	
Carried over...	418	19,745	1,562	20,163	353	

	Diseases.	Remaining at end of 1907.	Yearly Total		Total cases treated.	Remaining at end of 1908.	Remarks.
			Admissions.	Deaths.			
	Brought forward ...	418	19,745	1,562	20,163	353	
	Diseases of the Urinary System (*Continued*).—						
LOCAL DISEASES	Perinephretic Abscess...	...	1	...	1	...	
	Hæmaturia	...	5	...	5	...	
	Retention of Urine ...	1	1	...	2	...	
	Urinary Abscess ...	...	1	...	1	1	
	Atony of Bladder ...	...	1	...	1	...	
	Diseases of the Generative System.						
	(a) *Male Organs.*						
	Balanitis	3	26	...	29	...	
	Phimosis	...	35	...	35	...	
	Paraphimosis	...	21	...	21	...	
	Stricture of Urethra ...	1	45	...	46	...	
	Prostatitis	...	15	...	15	...	
	Ulcus Veneris Molle ...	3	95	...	98	3	
	Hydrocele	1	84	...	85	...	
	Orchitis	2	126	...	128	3	
	Extravasation of Urine...	...	2	...	2	1	
	Hæmatocele	...	12	...	12	2	
	Inflammation of Spermatic Cord ...	...	6	...	6	...	
	Aœdema of Scrotum ...	...	1	...	1	...	
	Abscess	...	20	...	20	...	
	Urethritis	...	12	...	12	1	
	Hypertrophy of Prostate	...	3	...	3	...	
	Gangrene of Scrotum...	1	2	...	3	...	
	Vaginalitis	...	1	...	1	1	
	(b) *Female Organs.*						
	Oöphoritis	...	3	...	3	...	
	Metritis	1	27	...	28	...	
	Parametritis	...	3	...	3	...	
	Endometritis	...	15	...	15	...	
	Displacement of Uterus	...	32	...	32	1	
	Vaginitis	1	42	...	43	...	
	Amenorrhœa	...	7	...	7	...	
	Dysmenorrhœa ...	...	7	...	7	...	
	Menorrhagia	1	12	...	13	1	
	Metrorrhagia	...	9	...	9	...	
	Leucorrhœa	...	31	...	31	...	
	Mastitis	2	6	...	8	...	
	Abscess of Breast ...	1	21	...	22	...	
	Other Diseases* ...	...	41	2	41	2	
	Affections connected with Pregnancy.						
	Abortion	...	16	...	16	...	
	Hæmorrhage	...	5	...	5	...	
	Other Affections ...	3	56	...	59	...	
	Carried over...	439	20,593	1,564	21,032	369	

*Vesico-Vaginal Fistula	6
Erosion of Cervix ...	5
Salpingitis	10
Abscess of Valva ...	3
Pyosalpingitis ...	3
Atresia of Vagina ...	2
Chapped Nipple ...	1
Vaginal Fistula ...	1
Suppuration of Bartholini's glands ...	1
Perimetritis	2
Vulvitis	7
	41

LOCAL DISEASES.

Diseases.	Remaining at end of 1907.	Yearly Total		Total cases treated.	Remaining at end of 1908.	Remarks.
		Admissions.	Deaths.			
Brought forward ...	439	20,593	1,564	21,032	369	
Affections connected with Parturition.						
Inertia	...	...	...	...	...	
Dystocia	...	2	1	2	...	
Post partum Hæmorrhage	...	...	...	...	...	
Pelvic Cellulitis ...	...	...	...	...	...	
Laceration of Perineum .	...	2	...	2	...	
Puerperal Endometritis	...	1	...	1	...	
Puerperal Septicæmia...	...	2	1	2	...	
Ruptured Perineum ...	...	1	...	1	...	
Diseases of the Organs of Locomotion.						
Osteitis	1	18	...	19	1	
Periostitis	...	23	...	23	1	
Caries	1	18	...	19	2	
Necrosis	2	22	...	24	2	
Synovitis	...	36	1	36	...	
Arthritis	4	85	4	89	5	
Ankylosis	...	8	...	8	...	
Ganglion	...	...	...	...	...	
Osteo Myelitis... ...	2	6	1	8	1	
Hydrops Articuli ...	...	1	...	1	...	
Lumbago	...	5	...	5	...	
Diseases of the Cellular Tissue.						
Cellulitis and Abscess...	34	1,135	10	1,169	51	
Gangrene	2	43	23	45	4	
Sinus	2	5	...	7	...	
Diseases of the Skin.						
Erythema	...	9	...	9	1	
Eczema	3	280	...	283	3	
Impetigo	5	121	...	126	2	
Psoriasis	...	5	...	5	...	
Herpes...	...	13	...	13	1	
Zona	...	8	...	8	...	
Pemphigus	...	5	...	5	...	
Carbuncle	4	27	...	31	1	
Furunculus	1	35	...	36	1	
Paronychia	...	24	...	24	1	
Lupus	...	1	...	1	...	
Ulcus	18	633	...	651	14	
Ecthyma	2	157	...	159	6	
Phagedœnic Ulcers ...	...	97	...	97	1	
Litchen	...	4	...	4	...	
Prurigo	...	5	...	5	...	
Onychia	...	4	...	4	...	
Seborrhea	...	2	...	2	...	
Cheloid	...	1	...	1	...	
Urticaria	...	7	...	7	...	
Dermatitis	...	5	...	5	...	
Sycosis	...	1	...	1	1	
Milium	...	1	...	1	...	
Carried over...	520	23,451	1,605	23,971	468	

Diseases.	Remaining at end of 1907.	Yearly Total		Total cases treated.	Remaining at end of 1908.	Remarks.
		Admissions.	Deaths.			
Brought forward...	520	23,451	1,605	23,971	468	
Injuries.						
(a) *General* :						
Burns	...	4	3	4	...	
Lightning Stroke ...	...	2	...	2	...	
Asphyxia	...	1	1	1	...	
Shock from :—						
Extensive Laceration of Foot & Leg ...	...	1	1	1	...	
Rupture of Small Intestine	...	1	1	1	...	
(b) *Local* :						
Burns & Scalds ...	1	40	5	41	...	
Bruise	4	267	...	271	1	
Wound	21	587	2	608	15	
Sprain	...	25	...	25	1	
Dislocation of :—						
Radius & Ulna ...	...	1	...	1	...	
Shoulder	1	5	...	6	...	
Jaw	...	1	...	1	...	
Hip	...	1	...	1	...	
Fractures	13	136	7	149	15	
Concussion of Brain ...	...	1	...	1	...	
Gunshot Wound ...	1	11	1	12	2	
Rupture of Urethra ...	...	1	1	1	...	
Foreign Bodies ...	...	12	...	12	...	
Rupture of spleen ...	...	1	1	1	...	
Malformations.						
Head	...	1	...	1	...	
Thorax	...	...	...	...	...	
Abdomen	...	...	...	...	...	
Upper Limb	...	2	...	2	...	
Lower Limb	...	3	...	3	...	
Poisons.						
Mineral	...	4	1	4	...	
Vegetable	...	2	...	2	...	
Animal	...	4	...	4	...	
Parasites.						
Tape Worms	...	3	...	3	...	
Round Worms... ...	3	72	...	75	...	
Thread Worms ...	...	2	...	2	...	
Bilharzia Hæmatobia ...	...	48	...	48	1	
Filariasis :—						
Elephantiasis ...	4	28	...	32	...	
Chyluria	...	13	...	13	...	
Ankylostoma ...	3	135	7	138	5	
Itch	13	1,196	...	1,209	23	
Pediculosis ...	...	3	...	3	...	
Aphthœ	...	2	...	2	...	
Chigger	...	1	...	1	...	
Tinea Versicolor ...	...	8	...	8	...	
Madura foot ...	...	1	...	1	...	
Tinea Circinata ...	...	1	...	1	...	
Not Specified * ...	22	1,480	5	1,502	11	
Parturition (*Uncomplicated*)	2	193	...	195	10	
Total ...	608	27,751	1,641	28,359	552	

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* Includes mothers admitted with their sick children and vice versa, malingering, &c.

SUMMARY.

Diseases.	Remaining at end of 1907.	Admissions.	Total cases treated.	Remaining at end of 1908.	Remarks.
General Diseases	269	12,511	12,780	220	
Diseases of the Nervous System ...	21	444	465	11	
„ „ Eye	13	370	383	7	
„ „ Ear	2	75	77	...	
„ „ Nose	...	15	15	...	
„ „ Circulatory System	7	268	275	6	
„ „ Respiratory System	29	1,970	1,999	36	
„ „ Digestive System ...	25	1,917	1,942	26	
„ „ Lymphatic System	37	1,345	1,382	21	
„ „ Urinary System ...	16	839	855	27	
„ „ Generative System	17	762	779	15	
Affections connected with Pregnancy and Parturition ...	3	85	88	...	
„ „ Organs of Locomotion	10	222	232	12	
„ „ Cellular Tissue ...	38	1,183	1,221	55	
„ „ Skin	33	1,445	1,478	32	
Injuries	41	1,098	1,139	34	
Malformations	...	6	6	...	
Parasites	23	1,513	1,536	29	
Poisons	...	10	10	...	
Not specified	22	1,480	1,502	11	
Parturition (*Uncomplicated*) ...	2	193	195	10	
Total ...	608	27,751	28,359	552	

RETURN OF BIRTHS.

	Number.	Deaths.	Remarks.
Born alive at term	160	3	
Prematurely born	18	14	
Still-born	24	24	
Total ...	202	41	

RETURN OF SURGICAL OPERATIONS.

Operations.			Number.	Deaths.	Remarks.
Operations	for	Tumours	44	...	
„	„	Evacuation of Abscesses ...	1,100	16	
„	„	Removal of Foreign Bodies ...	43	...	
„	on	Blood vessels	15	...	
„	„	Lymphatic Glands	26	...	
„	„	Skin and Subcutaneous Tissues ...	138	...	
„	„	Bones	60	...	
„	„	Nerves	...	...	
„	„	Joints	39	2	
„	„	Muscles and Tendons	4	...	
„	„	Skull and Brain	2	...	
„	„	Eye	81	...	
„	„	Ear	7	...	
„	„	Head and Face	22	1	
„	„	Chest	30	...	
„	„	Abdominal Cavity	114	8	
„	„	Liver	52	10	
„	„	Spleen	1	...	
„	„	Rectum and anus	49	...	
„	„	Urinary system	72	3	
„	„	Male Generative Organs ...	235	...	
„	„	Female Generative Organs ...	30	1	
Amputations			44	3	
Obstetric Operations			9	...	
Other Operations			48	1	
		Total...	2,265	45	

General Return of Mental diseases, Admissions and Deaths in 1908 at the Lunatic Asylum.

Mental diseases.	Remaining at end of 1907.	Yearly Total		Total cases treated.	Remaining at end of 1908.
		Admissions.	Deaths.		
Idiocy	15	11	1	26	20
Mania	225*	78	17	303	224**
Melancholia ...	34	9	3	43	30
Dementia... ...	113	9	9	122	112
Delusional Insanity..	48	1	2	49	45
Total ...	435	108	32	543	431
Admitted on interim order but found sane by the Commissioners in Lunacy.	...	4	...	4	...
Total ...	435	112	32	547	431

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* Including 1 male patient not yet reported upon by the District Commissioners on 31.12.07, but since found insane.

** Exclusive of the Chinaman Ah-Wen absconded and not yet recaptured.

ANNEXURE III.

Statement showing the number of Plague cases and the districts in which they were detected in each month of the year 1908.

DISTRICTS.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.		Percentage Mortality.
	C.	D.	C	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	
Port Louis	...	...	1	3	1	...	...	...	...	...	...	...	...	2	1	8	...	12	7	26	12	42	1	19	23	112	82.9
Pamplemousses ...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	6	13	6	16	72.7
Rivière du Rempart ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Flacq	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grand Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Savanne	...	...	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	1	3	75.0
Plaines Wilhems ...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	6	100.
Black River	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	1	3	1	2	...	...	...	1	1	3	...	2	1	8	...	13	7	27	12	43	7	35	30	137	82.0
No. of cases detected...	...		4		3		...		1		4		2		9		13		34		55		42		167		

NOTE :—C = Cured.
D = Died.

ANNEXURE IV.

Statement showing Plague incidence and death-rate since 1899.

A.—Epidemic period.

B.—Quiescent period.

	Districts.	January to May 1899.		June 1899 to March 1900.		April to July 1900.		August 1900 to March 1901.		April to August 1901.		September 1901. to March 1902.		April to August 1902.		September 1902 to March 1903.		April to June 1903.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
	Port Louis ...	...	...	172	698	...	...	94	334	...	...	180	593	...	...	62	213	...	...
	Pamplemousses	...	...	24	88	...	...	30	74	...	...	14	26	...	...	...	3	...	...
	Riv. du Rempart	...	...	32	99	...	...	57	108	...	...	26	43	...	...	...	...	...	...
	Flacq ...	...	...	2	1	...	...	6	15	...	...	14	32	...	...	...	...	...	...
A.	Grand Port ...	...	...	3	2	...	...	5	11	...	...	2	2	...	...	1	1	...	...
	Savanne ...	...	...	15	63	...	...	6	7	...	...	1	3	...	...	...	1	...	...
	Pls. Wilhems...	...	...	68	207	...	...	21	91	...	...	55	84	...	...	24	44	...	...
	Black River ...	...	...	...	5	...	...	...	3	...	...	...	...	...	...	...	...	...	...
	Moka ...	...	...	3	9	...	...	1	1	...	...	...	1	...	...	1	1	...	...
		...	...	319	1,172	...	..	220	644	...	..	292	784	...	...	88	263	..	...
	Grand Total ...	...	...	1,491		...	...	864		...	...	1,076		...	...	351		...	...
	Death-rate o|o...	...	...	78.6		...	...	74.5		...	...	72.9		...	...	74.9		...	...
	Port Louis ...	3	16	...		...	10	...		4	9	...		1	12	...		...	7
	Pamplemousses	...	2	...		...	...	...		1	6	...		...	3	...		...	...
	Riv. du Rempart	...	...	...		...	...	...		..	1	...		...	...	...		...	...
	Flacq ...	...	...	...		...	...	...		...	...	...		...	...	...		...	...
B.	Grand Port ...	...	...	...		...	...	...		...	...	...		...	...	..		...	...
	Savanne ..	...	...	...		...	...	...		...	...	...		...	...	...		...	...
	Pls. Wilhems...	...	...	...		3	5	...		...	4	...		2	6	...		2	4
	Black River ...	...	...	...		...	...	...		...	...	...		...	...	...		...	...
	Moka ...	...	...	...		...	...	...		...	...	...		...	...	...		...	...
		3	18	...		3	15	...		5	20	...		3	21	...		2	11
	Grand Total ...	21		...		18		...		25		...		24		...		13	
	Death-rate o/o...	85.7		...		83.3		...		80.0		...		87.5		...		84.6	

	Districts.	July 1903 to February 1904.		March to July 1904.		August 1904 to March 1905.		April to July 1905.		August 1905 to Jan. 1906.		Feb. to July 1906.		August 1906 to Feb. 1907.		March to August 1907.		September 1907 to Feb. 1908.		March to July 1908.		August 1908 to Feb. 1909.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
	Port Louis ...	211	769	...	...	41	240	...	...	41	163	...	...	81	322	...	...	12	81	...	...	21	115
	Pamplemousses	3	16	...	...	6	6	...	...	...	2	...	...	...	5	...	...	1	8	...	...	6	17
	Riv. du Rempart	1	6	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...
	Flacq ...	24	27	...	...	3	13	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A.	Grand Port ...	17	43	...	...	4	13	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
	Savanne ...	12	16	...	...	1	9	...	...	...	...	...	...	1	1	...	...	...	4	...	...	...	...
	Pls. Wilhems...	106	234	...	...	27	54	...	...	8	23	...	...	17	51	.	...	14	17	...	...	...	7
	Black River ...	2	5	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
	Moka ...	...	1	...	...	3	3	...	...	...	...	...	...	1	1	...	...	...	3	...	...	...	...
		376	1,117	...	...	85	339	...	...	49	189	...	...	101	382	...	...	27	114	...	...	27	139
	Grand Total ...	1,493		...	...	424		...	...	238		...	...	483		...	...	141		...	...	166	
	Death-rate o|o...	74.8		...	...	80.0		..	...	79.4		...	...	79.1		..	...	80.9		...	...	83.7	
	Port Louis ...	...		...	16	...		3	18	...		3	4	...		1	10	...		1	2	...	
	Pamplemousses	...		...	...	...		...	...	...		...	...	...		...	...	...		...	...	...	
	Riv. du Rempart	...		..	...	...		...	...	...		...	...	...		...	...	...		...	...	...	
	Flacq ...	...		...	1	...		...	...	...		...	...	...		...	...	...		...	...	...	
B.	Grand Port ...	...		...	6	...		.	...	...		...	...	...		...	...	...		...	...	...	
	Savanne ..	...		...	...	...		...	...	...		...	...	...		...	...	...		1	3	...	
	Pls. Wilhems...	...		1	9	...		...	...	...		...	1	...		2	6	...		...	3	...	
	Black River ...	...		1	...	...		...	...	...		...	...	...		...	...	...		...	...	...	
	Moka ...	...		...	...	...		...	...	...		...	...	...		...	...	...		...	...	...	
		...		2	32	...		3	18	...		3	5	...		3	16	...		2	8	...	
	Grand Total ...	...		34		...		21		...		8		...		19		...		10		...	
	Death-rate o/o...	...		94.1		...		85.7		...		62.5		...		84.2		...		80.0		...	

NOTE :—C. = Cured.
D. = Died.

ANNEXURE V.

ANTI-MALARIAL WORKS CARRIED OUT DURING 1908.

Minor works carried out by mosquito brigades :—

Drains and trenches dug	27,492 linear feet.
Do. cleaned	190,927 „
Canals roughlined	260 „
Rivers and streams cleaned and banks trained ...	156,673 „
Pools and ponds filled up	137
Pools and ponds cleaned	214

Works carried out by Sanitary Engineer :—

Trenches cut in marshy ground at Mon Plaisir ...	950 linear feet.
Rough canalisation of Pamplemousses River and filling up ponds	1,200 „
Completion of drainage works at Clairfond.	

Minor Sanitary Works carried out by Prison Labour :—

Rivers of Vacoas, Curepipe, Phœnix, Rose Hill, Centre of Flacq and streams of extra-urban area of Port Louis cleansed and in part canalised.	
Waste lands cleaned in Port Louis (extra-urban area)	754,151 sq. feet
Trenches cleaned in Port Louis do. do.	6,754 linear „

Minor Sanitary Works carried out by gangs employed by Medical and Health Department in Port Louis :—

Waste lands cleaned	1,625,901 sq. feet
Drains cleaned	109,988 linear „
Trenches dug	299 „ „

ANNEXURE VI.

Report of Dr. F. J. R. Momplé, Acting Assistant Director.

Annexed are the usual statements showing the work done during the year by the Sanitary Inspectors and Guards in Port Louis and the rural districts respectively.

Port Louis :— As in previous reports, the following is a general survey of the various duties performed. The staff paid 12,944 visits to private premises, 265 to lodging houses and 1,793 to shops, markets, bake-houses slaughter-houses and butchers' shops. They attended to special enquiries and special duties, supervised cremations and exhumations, &c., on 9,568 occasions. The performance of the night soil service called for 416 special controls during the course of the year and stables, cow sheds and pig stics were the subject of 2,080 inspections. The number of visits to Government Establishments, public and private gratuitous latrines, cemeteries, noxious factories, camps, water courses and lavatories amounted to 1,866.

On comparison with the figures for the preceding year, it will be noticed that some of those above given are appreciably lower. This is in great measure accounted for by the extensive cleaning operations carried out on the waste lands of the town which accordingly required fewer inspections (a superficial area of 264,450 square yards of such lands was dealt with) and the time the staff had to spend in looking for mosquito breading places as well as on other duties connected with anti-malarial work.

The special staff of disinfectors entrusted with quarantine duty were employed on such work during an aggregate of 38 days.

The attendances at Court numbered 256 during the year.

Out of 701 contraventions detected during the period under review, 24 had not been finally disposed of at the end of the year.

The general state of upkeep of the urban area of Port Louis cannot unfortunately be said to have shown much improvement during the period under report. The central parts of the town were regularly scavengered but the more outlying ones were much neglected. Save for a few major anti-malarial works carried out by the Municipality, little else has been done and numerous mosquito-breeding places and other insanitary conditions have been allowed to stand unmodified. A total of 795 nuisances falling under the provisions of Ordinance No. 23 of 1903 were detected by the staff and reported to the Corporation; only 369 of them had been attended to at the close of the year.

In addition to the above, the attention of the Public Works and Surveys Department was called to 56 other public nuisances for the abatement of which they were responsible and 2,925 notices were served in connection with nuisances on private premises.

As a result of the application of the Swine Destruction Ordinanee, 90 stray pigs were shot.

This shows an improvement, but these animals have still continued to give rise to trouble and nuisance.

The scavengering service of the extra-urban area of the district has on the whole proved satisfactory and has been performed in the same manner as last year.

Although the water carriage system has been further extended, still a large area of the town has as yet to depend on the pail system for the removal of its night soil. The Drainage Department has very kindly supplied the following statement showing the main works carried out during the year.

(a). Drainage of part of District IV authorised up to date completed by the connection of 30 premises with the main sewer.

(b). 58 premises and 4 Government Buildings connected to drainage system in District II.

(c). 2.37 miles of underground sewers laid in District II.

The remarks already made in previous reports on the water supply of Port Louis, viz : that it is unsatisfactory owing to constant exposure to pollution, must stand repetition if only to keep in evidence the dangers lying in the wake of this defective condition of one of the cardinal requisites of a well urbanised centre of population.

The local Sanitary Authority has continued to devote attention to the inspection of lodging houses and insanitary dwellings in Port Louis and in that connection 712 orders under Ordinance No. 21 of 1900 were issued to obtain the remedy of the defective conditions noted. A fair proportion of these orders were duly attended to and non compliance is to be accounted for by the causes already mentioned, among which pecuniary stress was foremost during the year under report.

The milk trade in Port Louis has been kept under strict supervision by the staff and milk was tested by them on 839 occasions.

Rural Districts :—Annexure B is the customary statement of Sanitary contraventions, fines, &c., in the rural districts during the year.

The number of contraventions detected was 962. Prosecution followed in 854 cases and the fines imposed by the Magistrates as a result thereof amounted to Rs. 2,960.50.

In view of the abatement of nuisances, 8,519 notices were served of which 976 had not been complied with when the year came to an end. The fines imposed in the 311 cases in which parties had to be prosecuted for failure to comply with the notices served on them amounted to Rs. 588.96.

A total of Rs. 21,002.15 was collected as fees in the cemeteries and markets under the management of the Health Department.

In the four public abattoirs 3,635 animals were slaughtered during the year and the collections amounted to Rs. 7,127.50.

The upkeep of the estate camps has on the whole proved satisfactory but the scavengering service is apt to be neglected during crop time. The Estate authorities, a great majority of whom have readily followed the advice of Major Ross of having a certain number of their men trained as "moustiquiers", should not fail to recognise that an efficient scavengering of their camps all the year round is a necessary adjunct to anti-malarial measures and that the control thus resulting will greatly assist in leading the labourers to use latrines and tend to minimise the risk of the spread of Ankylostomiasis, always lurking behind the habit of many of easing themselves indiscriminately about and near the camps.

The following is a list of the noxious factories authorised during the year. The supervision of such establishments has continued to form part of the duties of the Sanitary staff :—

Distillery ...	1
Oil Factory ...	1
Manure Factory ...	1
Aloe fibre Factories ...	2
Bambara Curing Factory	1
Lime-kilns ...	2

The improvement of the water supply which it is gratifying to note is actively kept in sight by some of the District Boards still remains an arduous task to be accomplished. The ground as yet gained is but small compared to what has to be covered before a general satisfactory result is obtained.

GENERAL.

The prevalence of the various diseases with which this report is more closely concerned has been dealt with elsewhere. It may be mentioned here that the staff are alive to the main prophylactic measures to be adopted and that they strive their best to minimise the risk of infection when cases are brought to their notice.

As has already been the practice in the case of typhoid fever, the issue of printed forms of advice to those in charge of diphtheria patients was begun during the year.

With a view to attract the attention of the public to the cause of Ankylostomiasis and to the precautionary measures to be taken to avoid contracting the disease which shows a tendency to spread in the Island, printed notices giving information thereon were posted up in the various dispensaries and in other public places.

The staff as a whole have shown a good deal of interest in detecting breeding places of mosquitoes and in differentiating the insects in the larval and adult stages and in anti-malarial work generally. The actual works carried out and the measures adopted in that connection are specially reported upon elsewhere.

F. J. R. MOMPLÉ,

Acting Assistant Director.

ANNEXURE A.

MEDICAL AND HEALTH DEPARTMENT.

Sanitary Branch—Port Louis.

RETURN OF DUTIES PERFORMED DURING THE YEAR 1908.

INSPECTORS.	Sections.	Private Premises.	Shops and Stores.	Lodging house.	Livery Stables.	Government Establishments.	Public Latrines.	Streams and Water courses.	Gully Holes.	Special duties.	Special Enquiries.	Cemeteries.	Shores.	Slaughter houses.	Tanneries.	Exhumations.	Inodore Estabts.	Morgues.	Attendance at Sales.	Markets.	Lighters.	Gratuitous Latrines.	Cremations.	Dhobies.	Bake houses.	Lime kilns.	Sales of Meat.	Factories.	Cow sheds.	Docks.	Camps.	Pig sties.	Seizures.	Quarantines.	Service of notices.	Control of public nuisances.	Milk examinations.	Scavengering neglects.	Waste lands.	Attendances at Court.
S. Caltaux	I	1,376	228	...	42	89	64	26	...	70	30	16	7	20	40	...	48	...	...	...	...	42	5	7	...	13	...	3	138	...	11	541	2	...	361	261	21	42	84	42
H. Dubois	II	1,996	154	71	194	109	10	21	20	70	19	...	...	...	...	...	...	...	...	12	...	...	1	39	10	...	...	...	15	...	41	...	...	...	358	299	79	126	163	47
N. Tanguy	III	1,480	46	...	103	24	5	32	42	81	31	...	...	...	...	...	...	...	...	...	...	1	1	14	6	...	...	1	13	...	...	2	...	..	270	187	159	362	116	26
P. Baretti	IV	2,422	370	183	237	112	2	25	61	6	29	...	16	30	...	...	...	...	...	...	687	...	...	127	48	...	170	29	12	62	30	...	2	...	131	479	114	438	57	39
E. César	V	1,551	173	...	109	520	84	28	236	96	34	...	...	...	...	...	...	...	5	33	362	...	2	46	25	...	124	16	4	6	...	...	1	...	103	182	38	79	8	17
A. Bouquet	VI	1,312	66	...	64	69	...	21	110	141	24	...	6	...	...	...	...	...	...	...	247	...	...	25	22	...	...	15	20	13	26	...	...	..	78	368	157	174	81	26
L. Henrisson	VII	1,409	54	...	54	...	9	28	34	87	47	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	262	...	9	81	...	...	371	346	134	189	83	48
P. Pitchen	VIII	1,398	136	11	120	88	49	25	67	55	32	25	25	...	...	12	...	14	...	50	...	15	...	50	16	14	...	17	38	...	12	31	...	...	133	285	137	77	72	11
Total... ...	...	12,944	1,227	265	923	1,011	223	206	570	606	246	41	54	50	40	12	48	14	5	95	1,296	60	9	308	127	27	294	81	502	81	129	655	5	...	1,805	2,407	839	1,487	664	256

Notices issued.

Contraventions.

INSPECTORS.	Sections.	Orders Ord. 21 of 1900.		Art. 29 Ordinance 32 of 1894—1895.		Regulations 220 of 1884.		Regulations 137 of 1882.		Schedule C. Ord. 32 of 1894-95 (Public Nuisances).		Ordinance 32 of 1894-95.	Regulations 220 of 1884.	Regulations 137 of 1882.	Regulations 148 of 1878.	Regulations 192 of 1882.	Regulations 63 of 1875.	Regulations 134 of 1883.	Regulations 67 of 1885.	Ordinance 21 of 1900.	Regulations 65 of 1903.	Ordinance 47 of 1898.	Regulations 211 of 1907.	Regulations 73 of 1908.	Regulations 498 of 1900.	Fines.		Inspectors' Signatures.
		No. issued.	No. C. W.*	No. issued.	No. C. W.*	No. issued.	No. C. W.*	No. issued.	No. C. W.*	No. issued.	No. C. W.*															Rs.	c.	
S. Caltaux	I	28	25	387	263	21	15	36	36	41	21	112	9	4	...	43	...	...	...	13	1	...	4	12	2	120	75	
H. Dubois	II	71	102	307	270	151	151	2	2	97	53	45	21	41	...	2	...	1	...	30	...	...	...	...	...	67	50	
N. Tanguy	III	22	22	191	131	79	74	12	12	73	33	19	12	5	...	...	...	...	1	40	...	...	...	...	...	50	...	
P. Baretti	IV	184	150	215	174	33	29	23	23	139	64	12	20	7	1	1	...	1	2	10	...	1	...	3	1	131	...	
E. César	V	166	129	271	215	77	72	7	7	122	91	8	1	13	...	...	...	2	1	25	...	...	...	...	3	61	...	
A. Bouquet	VI	167	78	270	215	103	89	8	4	165	73	29	4	1	...	...	...	...	...	53	...	...	...	...	...	37	...	
L. Henrisson ...	VII	28	9	220	185	234	106	9	8	49	9	20	21	9	1	9	...	...	...	6	1	...	...	...	...	47	75	
P. Pitchen	VIII	46	37	207	162	61	59	1	1	109	25	3	1	3	...	10	...	...	...	...	1	...	...	...	...	51	...	
Total... ...		712	552	2,068	1,615	759	595	98	93	795	369	248	89	83	2	65	...	4	4	177	3	1	4	15	6	566	...	

* N. B.—Including those remaining from preceding months.

F. J. R. MOMPLÉ,
Acting Assistant Director.

ANNEXURE B.

MEDICAL AND HEALTH DEPARTMENT.

Statement of all Sanitary Contraventions, Collections, &c., for the year 1908.

DISTRICT.	CONTRAVENTIONS. No. of	No. of cases in which parties were warned and articles seized and destroyed.	No. of parties prosecuted.	Amount of Fines. Rs.	c.	NOTICES SERVED. Under Regn. 177 of 1883.	Regn. 185 of 1879.	Ord. 9 of 1889.	Regn. 162 of 1885.	Regn. 198 of 1907.	Regn. 263 of 1893.	Ord. 32 of 1894-95.	Regn. 130 of 1898.	Regn. 498 of 1900.	Regn. 65 of 1903.	Ord. 21 of 1900.	Regn. 73 of 1908.	Ord. 18 of 1896.	Complied with.	Not complied with.	No. of parties prosecuted for non-compliance with.	Amount of Fines. Rs	c.	ABATTOIRS. No. of Private	No. of Public	No. of animals killed in each Public Abattoir. Oxen.	Cows.	Calves.	Swine.	Goats.	Sheep.	CEMETERIES. No. of Private	No. of Public	No. of burials in public	Fees collected. Rs.	c.	MARKETS. No. of	Amount of Fees collected. Rs.	c.	ABATTOIRS. No. of	Amount of Fees collected. Rs.	c.
Pamplemousses—Lower	28	3	25	65	...	...	...	...	...	147	...	32	...	...	11	...	...	...	189	1	1	Paying costs only.		...	...	...	...	...	...	...	...	4	1	2,810	4,413	50	...	...	...	...	...	...
Do. —Upper	26	3	23	75	...	...	...	...	7	44	...	45	...	...	...	...	...	...	94	2	2	4	...	...	1	43	60	229	...	...	...	1	...	...	...	...	1	198	65	1	715	50
Rivière du Rempart	82	30	52	162	...	...	14	...	56	158	...	41	...	...	...	2	...	...	233	38	20	45	...	...	...	...	...	...	...	...	...	15	3	567	1,013	...	...	...	...	...	...	...
Flacq—Northern	79	16	63	163	75	...	32	3	119	186	...	90	227	...	1	...	1	2	647	14	7	47	...	2	...	...	...	...	...	...	...	14	1	219	140	...	...	...	...	...	...	...
Do. —Southern	36	8	28	50	75	...	...	...	66	65	...	34	...	...	...	...	...	...	141	24	24	32	75	...	...	...	...	...	...	...	...	3	2	764	1,512	50	...	...	...	...	...	...
Grand Port–Rose Belle sectn.	39	6	33	181	25	...	...	...	374	66	...	510	...	...	...	12	...	...	900	62	8	8	25	5	...	...	...	...	...	...	...	5	1	760	1.480	...	...	...	...	...	...	...
Do. –Mahebourg do.	83	...	83	110	25	...	...	...	85	28	...	81	...	...	...	9	...	...	135	68	3	4	70	...	1	107	283	212	91	92	...	5	...	576	844	...	1	1,156	30	1	1,630	...
Savanne	82	...	82	458	...	...	...	...	...	463	...	15	...	...	...	...	...	...	463	15	15	23	20	2	1	62	73	131	...	...	3	4	3	1,181	2,092	50	...	...	...	1	602	50
Black River	77	7	70	122	51	...	18	...	81	1	...	160	...	...	3	...	...	...	205	58	29	29	01	1	...	...	...	...	...	...	...	6	3	519	900	...	...	...	...	...	...	...
Curepipe	105	7	98	630	75	498	...	...	...	667	...	197	328	15	...	...	1	...	1,587	119	13	12	75	1	...	...	...	...	...	...	...	...	§1	...	...	...	1	2,186	30	...	...	...
Vacoas and Phœnix	123	10	113	199	...	...	5	...	...	142	...	184	172	...	...	...	...	...	493	10	85	127	75	1	...	...	...	...	...	...	...	2	1	1,107	2,430	50	...	...	...	...	...	...
Quatre Bornes	104	2	102	412	50	...	...	...	206	...	...	969	152	...	...	...	...	...	836	491	30	141	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Beau Bassin and Rose Hill	86	12	74	318	50	...	...	...	309	83	...	805	...	...	2	...	...	...	1,170	29	29	66	50	...	1	511	313	441	434	533	15*	1	1	790	598	...	†2	620	90	1	4,179	50
Moka	12	4	8	11	25	...	7	...	370	1	84	29	...	3	...	...	1	...	450	45	45	47	05	1	...	...	...	...	...	...	...	8	2	885	1,416	...	...	...	...	...	...	...
Total	962	108	854	2,960	51	498	76	3	1,673	2,051	84	3,192	879	18	17	23	3	2	7,543	976	311	588	96	13	4	723	729	1,013	525	625	18	69	19	10,178	16,840	...	5	4,162	15	4	7,127	50

* Deer 2. § Closed. † Beau Bassin Market closed.

Details of Contraventions.

DISTRICTS.	Regn. 63 of 1875.	Regn. 107 of 1876.	Regn. 96 of 1877.	Regn. 97 of 1877.	Ordce. 12 of 1878.	Regn. 148 of 1878.	Regn 185 of 1879.	Regn. 134 of 1883.	Regn. 162 of 1885.	Ordce. 9 of 1889.	Regn. 67 of 1885.	Regn. 198 of 1907.	Regn. 332 of 1891.	Regn. 189 of 1892.	Regn. 263 of 1893.	Ordce. 32 of 1894-95.	Regn. 130 of 1898.	Regn. 25 of 1900.	Regn. 167 of 1890.	Regn. 65 of 1903.	Regn. 73 of 1908.	Regn. 498 of 1900.	Regn. 191 of 1907.	Ord. 21 of 1900.	Regn. 177 of 1883.	Total amount of fines. Rs.	c.
Pamplemousses—Lower	...	1	...	...	...	...	1	...	...	5	15	1	...	...	...	4	...	...	...	1	...	...	...	...	...	65	...
Do. —Upper	4	...	...	...	...	...	3	...	1	...	9	...	8	...	...	1	...	...	...	...	...	...	...	...	...	75	...
Rivière du Rempart	...	...	...	...	15	1	8	...	17	8	3	20	...	...	...	8	...	...	...	...	2	...	...	...	...	162	...
Flacq—Northern	2	...	2	...	9	...	9	...	2	2	8	22	...	...	...	17	...	2	...	...	1	3	...	...	...	163	75
Do. —Southern	...	...	...	...	...	...	...	...	...	1	7	2	...	...	...	26	...	...	...	...	...	...	...	...	...	50	75
Grand Port-Rose Belle sectn.	9	...	...	...	3	...	6	...	2	...	...	...	...	...	...	13	...	...	...	1	5	...	...	...	...	181	25
Do. —Mahebourg	...	...	...	...	...	...	18	...	40	...	3	...	...	17	...	...	1	...	...	...	...	1	3	...	...	110	25
Savanne	3	...	...	...	...	...	2	...	46	...	3	15	...	...	...	7	...	...	...	...	5	...	...	1	...	458	...
Black River	...	...	...	...	17	...	...	...	23	...	...	...	...	...	...	37	...	...	...	...	...	...	...	...	...	122	51
Curepipe	5	...	...	...	...	...	...	8	...	...	13	5	8	12	...	8	...	1	...	...	...	14	...	2	29	630	75
Vacoas and Phœnix	1	3	...	..	...	4	3	4	47	1	8	15	...	...	...	21	11	...	...	...	...	5	...	...	...	199	...
Quatre Bornes	...	...	...	...	4	...	...	1	58	1	9	...	...	...	...	30	...	...	...	...	...	1	...	...	...	412	50
Beau Bassin and Rose Hill	13	...	...	...	...	...	...	...	26	...	5	...	6	...	...	29	...	...	...	...	1	6	...	...	...	318	50
Moka	4	...	...	...	...	1	4	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	11	25
Total	41	4	2	...	48	6	54	14	263	18	83	80	22	29	...	201	12	3	...	2	14	31	3	3	29	2,960	51

F. J. R. MOMPLÉ,
Acting Assistant Director.

ANNEXURE VII.

Report of Dr. F. A. Rouget, Medical Superintendent, Civil Hospital.

1.—The number of admissions in 1908 exceeded by nearly 1,000 the preceding year's record and is consequently by far the highest registered, as can be seen from the following table:—

TABLE I.

Years.	Admissions.	Deaths.
1898	5,658	356
1899	5,230	418
1900	5,260	410
1901	5,554	509
1902	6,092	428
1903	6,062	520
1904	5,573	379
1905	6,225	457
1906	5,784	404
1907	6,230	424
1908	7,174	539

This increase, considerable though it be, is not traceable to any particular epidemic but to a number of causes, the chief of which are increased poverty, a better appreciation of the advantages of hospital treatment, especially in the surgical line, and the apparent prevalence of certain common diseases presently to be mentioned.

It is an unquestionable fact that more patients suffering from chronic ailments, surgical affections, or minor complaints, now come to hospital than formerly did.

2.—Table II, which gives the number of European, Creole and Asiatic patients admitted during the last four years, indicates a steady decrease in the number of European patients. This, as stated in previous reports, is chiefly due to the scarcity of European sailors in our harbour.

TABLE II.

Nationalities.	1905.	1906.	1907.	1908.
Europeans ...	113	86	40	32
Creoles	4,121	3,918	4,560	5,287
Asiatics	1,991	1,782	1,630	1,855
Total... ...	6,225	5,786	6,230	7,174

By the term "Asiatic patients" are meant Indians and Chinamen not born in Mauritius.

The following detailed classification of these patients shows to what extent such aliens and undesirables constitute a charge on the Public Treasury.

TABLE III.

Nationalities.	Paupers.	Paying.	Total.
Indians	1,577	139	1,716
Chinese	129	10	139
Total	1,706	149	1,855

No fewer than 1,577 Indians, most of them Immigrants discharged from their Sugar Estates, and 129 Chinamen stranded in the Island, forming in all about one-fourth of the total number of admissions, received gratuitous treatment in this hospital in the course of 1908.

A number of such Indian Immigrants were time-expired prisoners condemned under the Labour Law and too ill to travel back to their respective Estates.

3.—Table IV classifies the admissions according to their respective designations and the districts from which they came.

TABLE IV.

Districts.	Paupers.	Private Patients.	Police.	Prison Warders.	Port Department.	Municipality.	Police Cases.	Non Paying.	Total.	Deaths.
Port Louis	5,129	415	340	67	1	128	432	77	6,589	489
Pamplemousses ...	93	2	7	...	...	...	...	...	102	11
Rivière du Rempart...	3	...	1	...	...	...	...	...	4	3
Flacq	...	2	10	2	...	...	...	...	14	1
Moka	176	7	3	...	...	...	...	...	186	11
Plaines Wilhems ...	7	2	105	22	...	...	...	...	136	6
Grand Port... ...	...	1	3	...	...	...	...	...	4	1
Savanne	...	2	5	...	...	...	...	...	7	3
Black River ...	103	5	24	...	...	...	...	...	132	14
Total ...	5,511	436	498	91	1	128	432	77	7,174	539

There were 6,589 admissions from Port Louis with 489 deaths and 585 from the Country districts with 50 deaths.

Patients from Moka, Black River and Pamplemousses were nearly all of them paupers sent respectively by the Dispensaries of Pailles, Petite Rivière and Terre Rouge ; the highest number being sent by the first mentioned dispensary.

4.—The total number of patients treated was 7,354, of whom 5,184 were males and 2,170 were females. The corresponding numbers last year were 4,597 males and 1,758 females.

The increase therefore occurred in the case of both the male and female patients.

The daily average number in hospital likewise exceeded last year's record, especially with regard to the female patients.

The following table which gives the corresponding numbers for the last five years, shows the considerable excess which the year under review presents over the preceding years.

TABLE V.

Daily average number of patients in hospital.

Years.	Males.	Females.	Total.
1904	137	63	200
1905	160	67	227
1906	141	64	205
1907	156	75	231
1908	169	85	254

Table VI is a summary of admissions, discharges and deaths.

TABLE VI.

Patients.	Males.	Females.	Total.	
No. of patients at end of 1907 ...	116	64	180	7,354
Admitted during 1908	5,068	2,106	7,174	
Total Treated	5,184	2,170	7,354	
Cured	2,680	1,048	6,636	7,354
Relieved	1,822	721		
Not improved	192	173		
Died	371	168	539	
Remaining at end of 1908 ...	119	60	179	

5.—The rate of mortality as is shown in Table VII, was a little higher than last year owing chiefly to the much greater number of patients admitted in "*articulo mortis*" or in an advanced state of disease.

TABLE VII.

Years.	No. of Patients treated.	No. of deaths.	Death-rate per cent of patients.
1905	6,351	457	7.2
1906	5,784	404	6.9
1907	6,355	423	6.7
1908	7,354	539	7.3

In 177 or (32.8 o/o) of the fatal cases, the patients received in a moribund state, died in less than 72 hours after admission.

TABLE VIII.

Year.	Died within 24 hours.	24 to 48 hours.	48 to 72 hours.	within 72 hours.
1908	90	64	23	177

This proportion is much higher than that of the three preceding years as can be seen from the following table :—

TABLE IX.

Years.	1	2	3
	No. of deaths.	No. of deaths within 72 hours after admission.	Proportion of 2 to 1.
1905	457	124	27.1 o/o
1906	404	128	31.5
1907	423	86	20.5
1908	539	177	32.8

6.—Table X shows the relative frequency and mortality of the most important diseases for the last three years. Malaria in its acute form has not manifested a severe epidemic character since 1906, but Anæmia and Hypertrophy of Spleen accounted in 1908 for a much larger number of cases than in the two previous years. There was likewise a marked prevalence of Dysentery, Tuberculosis and Broncho-Pulmonary affections as compared with the preceding years. On the other hand, Influenza, Plague, Syphilis and Beri-Beri were answerable for fewer cases.

TABLE X.

Diseases.	Cases.				Deaths.				Case-mortality per o/o.			
	1905	1906	1907	1908	1905	1906	1907	1908	1905	1906	1907	1908
Malaria	1,558	1,031	1,004	994	37	9	9	10	2.3	.87	.8	1.
Tuberculosis	481	444	478	509	94	111	123	133	19.5	.25	25.7	26.1
Influenza	347	533	292	268	19	6	17	16	5.	1.1	5.8	5.9
Dysentery	228	258	276	402	56	54	53	80	24.5	20.9	19.2	19.9
Plague	30	30	18	14	9	15	9	7	30.	50.	50.	50.
Beri-Beri	20	12	25	8	7	1	2	...	35.	8.3	8.0	...
Syphilis	163	180	175	155	2	2	1	...	1.2	1.1	.5	...
Anæmia	152	106	189	308	3	3	3	4	2.	28.3	1.5	1.2
Hyperhophy of Spleen	99	99	117	177	...	...	...	4	...	...	...	2.2
Tropical Phagedœna ...	91	95	37	35	...	...	...	...	...	...	...	...
Bronchitis	309	289	375	590	3	4	6	13	1.1	1.3	1.6	2.2
Pneumonia	131	215	180	239	46	72	59	87	35.8	33.4	32.7	36.3
Bright's disease ...	136	98	146	169	30	21	36	42	22.	21.4	24.6	24.8
Rheumatism ...	146	154	183	185	1	...	...	...	6.	...	...	...
Injuries	356	295	327	277	15	6	6	2	4.2	2.	1.8	.7
Ankylostomiasis ...	...	11	19	40	...	1	...	2	...	9.	...	5.
Erysipelas	...	27	17	17	...	3	2	3	...	11.1	11.7	17.6

7.—The following is a comparative statement of the admissions and deaths during the four quarters of the year for the last four years :—

TABLE XI.

Quarters.	Admissions.				Deaths.			
	1905	1906	1907	1908	1905	1906	1907	1908
1st. Quarter ...	2,034	1,584	1,416	2,164	118	89	69	132
2nd. " ...	1,653	1,634	1,706	1,992	127	103	109	131
3rd. " ...	1,413	1,512	1,545	1,629	120	130	133	146
4th. " ...	1,125	1,054	1,563	1,389	92	82	112	130
Total ...	6,225	5,784	6,230	7,174	457	404	423	539

This table shows that in the year under review the morbidity was highest in the first quarter and the mortality highest in the last.

8.—Table XII gives the monthly incidence of the most important diseases in 1908.

TABLE XII.

1908.	Malaria.	Hyp: of spleen.	Anæmia.	Dysentery.	Tuberculosis.	Influenza.	Bronchitis.	Pneumonia.	Plague.	Typhoid fever.	Beri-Beri.	Measles.
January ...	103	16	29	29	59	5	80	18	...	...	...	4
February ...	133	23	33	37	40	18	87	22	2	1	...	...
March ...	139	25	41	46	54	10	88	19	...	...	3	2
April	112	17	43	59	33	6	73	14	...	...	...	...
May	131	31	31	37	39	6	68	20	...	...	...	1
June	109	25	40	56	40	4	44	13	...	...	...	...
July	70	15	24	44	44	32	60	29	...	1	...	...
August ...	29	3	13	28	42	45	16	17	1	1	...	...
September ...	41	8	8	25	30	30	22	11	2	...	...	...
October ...	32	3	14	15	38	27	18	25	2	4	...	...
November ...	28	1	10	3	36	29	10	16	2	...	2	...
December ...	53	3	14	15	30	53	17	30	5	1	2	...
Total ...	980	170	300	394	485	265	583	234	14	8	7	7

The incidence of Malaria was highest in February, March and May, and lowest in August, October and November.

Dysentery prevailed to a greater extent than usual from February to July inclusively.

Bronchitis raged chiefly in the first quarter while Pneumonia showed throughout the year great irregularity in its prevalence.

The Plague months were July to December.

9.—Malaria though by far the disease most commonly met with in hospital practice, as usual contributed but in a small degree to the death-rate. The following table gives the comparative prevalence and severity of Malaria since 1900.

TABLE XIII.

Years.	Cases.	Deaths.
1900	1,047	27
1901	818	16
1902	1,120	4
1903	942	21
1904	807	8
1905	1,549	37
1906	1,022	9
1907	1,044	9
1908	994	10

TABLE XIV.

Clinical return of Malarial Fever for the last four years.

Types.	No. of Admissions.				No. of Deaths.			
	1905.	1906.	1907.	1908.	1905.	1906.	1907.	1908.
(*a*) Intermittent—Quotidian ...	708	646	394	449	3	1	...	...
Tertian ...	96	17	15	37	...	...	...	...
Quartan ...	23	4	...	1	...	...	...	...
Irregular ...	56	2	7	25	...	...	1	...
Type undiagnosed.	488	315	553	439	...	...	4	1
(*b*) Remittent	130	22	20	19	6	3	3	4
(*c*) Pernicious	48	16	6	10	28	5	1	5
Total ...	1,549	1,022	995	980	37	9	9	10

The above return does not call for remarks of any interest beyond repeating what has been said in previous reports. In more than half of the cases, the type could not be diagnosed as the patients had mild attacks of a few hours duration without recurrence.

Under the term " Pernicious " are included four cases of Hæmoglobinuric fever of which two ended fatally in less than 24 hours and 48 hours respectively after admission. I am of opinion that Hæmoglobinuric fever should for many reasons be returned under a separate heading.

To begin with, the purely malarial origin of this condition is still an open question.

Besides, the hospital records should be in a position to afford a reliable index, (which the nomenclature in present use does not) of the comparative prevalence of this most serious tropical affection in different parts of the Island.

An additional point of interest could be elicited by a statement giving the nationalities of the patients. It is a well known fact that Indians in this Island enjoy a remarkable immunity from Black water fever. I have in the course of 19 years of hospital practice met with a single case of Hæmoglobinuric fever on an Indian. The patient was a little boy of 5 or 6, of very light complexion, and brought up as regards food, clothing, &c., not indian like but after the best creole style.

The four cases that came under notice this year may be classified as follows :—

TABLE XV.

Sex.	Age.	Nationality.	From whence admitted.	Remarks.
F	73	European ...	*Labourdonnais Street, Port Louis.	Admitted in a precarious state, died shortly after admission.
M	60	Creole of Bourbon..	Church Street, Port Louis ...	
M	45	European ...	Port Louis ...	Discharged cured.
M	26	China	Port Louis, Tranquebar ...	

* Champ Delort.

In the remaining three fatal cases of Pernicious Fever, the patients, admitted in a dying state, expired a few hours after admission. The cause of death was given by the Police Surgeon after inquiry confirmed by Post-mortem examination.

Under similar circumstances, the Police Surgeon gave the cause of death in another case as Malarial Fever of undiagnosed type.

Apart from acute Malarial attacks, far more cases of Splenomegaly and Anæmia, the result of chronic malarial infection coupled with privation, were admitted in 1908 than in previous years. Many of such patients, utterly destitute, came to hospital rather to be fed than to receive medical treatment.

In the annual report for 1902, I raised strong objections to the omission from the nomenclature of some appropriate term indicative of the chronic form of Malaria.

In presence of the difficulties experienced in returning such cases under their true condition, I beg leave to renew the remarks I have already made on the subject, which were as follows :—

" Cases of Hypertrophy of the Spleen together with a few cases returned
" under Anæmia because the latter condition predominated, were cases formerly
" designated as " Malarial Cachexia ". It is, from the œtiological stand
" point, to be regretted that the new classification loses sight of the true nature
" of these pathological conditions which are really nothing but chronic mani-
" festations of malarial infection and could therefore very properly be described
" under the name of Chronic Malaria. "

In the appendix to this report will be found the clinical record and Post-mortem appearances of a curious case of torsion of the spleen attended by displacement and intestinal obstruction.

10.—Dysentery :—The year under review shows a considerable increase in the admission for Dysentery, especially in its acute form, as compared with the previous years.

TABLE XVI.

Diseases.	Cases.				Deaths.			
	1905.	1906.	1907.	1908.	1905.	1906.	1907.	1908.
Acute Dysentery... ...	133	176	125	230	8	6	3	7
Chronic Dysentery ...	93	76	151	164	48	48	44	73
Total	226	252	276	394	56	54	47	80

The death-rate was likewise higher but for this the chronic cases, of which 44% proved fatal, were solely responsible.

11.—Tuberculosis.

CLASSIFICATION OF TUBERCULAR CASES.

TABLE XVII.

Diseases.	Cases.	Deaths.
Pulmonary Tuberculosis	480	119
Tubercular Enteritis	5	4
„ Meningitis	1	...
Tuberculosis of Bone	1	...
Tubercular Peritonitis	1	1
„ Arthritis	1	...
Tuberculosis of Glands	4	...
Tabes Mesenterica	5	5
Atrepsia	2	1
Tubercular Laryngitis	1	...
General Tuberculosis	6	3
Tubercular sinus	2	...
Total	509	133

Table XVIII shows the comparative prevalence of Tuberculosis and mortality from the disease since 1902.

TABLE XVIII.

Years.	Admissions for all cases.	Admissions for Tuberculosis.	Proportion of admission for Tuberculosis to admissions for all cases.	Deaths from all causes.	Deaths from Tuberculosis.	Proportion of deaths from Tuberculosis to deaths from all causes.
1902	6,092	554	6.7 o/o	428	106	24.7 o/o
1903	6,062	502	8.2 „	520	129	24.8 „
1904	5,573	543	9.7 „	379	112	29.3 „
1905	6,225	465	7.4 „	457	94	20.4 „
1906	5,784	444	7.6 „	404	111	27.4 „
1907	6,230	460	7.3 „	423	123	29.1 „
1908	7,174	485	6.7 „	539	133	24.6 „

The above figures are sufficiently eloquent to dispense with much development.

I have since 1903 repeatedly called attention to the prevalence of this deadly affection and I can only refer to the remarks I made in previous reports on this important subject.

12.— Enteric Fever.—There were eight cases of typhoid fever as against 4 last year. Four of the cases ended fatally.

The following is a classification of the cases according to the nationality and residence of the patients :—

TABLE XIX.

Residence.	European.	Creoles.	Indian.	Chinese.	Total.
Port Louis	1	3	1	1	6
S.S. " Goth Castle "	1	...	...	...	1
S.S. " Avondale Castle "	1	...	...	...	1
Total ...	3	3	1	1	8

With the exception of the case of an Indian who died a few hours after admission, the diagnosis in each case was confirmed by Widal's sero-reaction.

13.—Cerebro-Spinal Meningitis.—This disease, if I am not mistaken, appears for the first time in the returns of this hospital. Only two typical cases were recorded, but I have no doubt that one or two more had occurred before our attention was called to the presence of the disease in Mauritius and were returned as Influenza with Cerebral complication, owing to the close resemblance of the two affections.

The two diagnosed cases ended fatally seven days and four days respectively after admission.

Both patients were indians and town residents, one was 50 years old and the other 10 years. In both cases, lumbar puncture was made, and the Cerebro-spinal fluid examined at the Bacteriological Laboratory, showed the presence of the *meningococcus intracellubaris.*

14.— Measles.—There were only seven cases as compared with 28 last year— viz : 4 in January, 2 in March and 1 in May.

There was not a single case in the second half of the year. All the cases recovered.

15.— Plague.—There was a marked reduction in the admissions for Plague as compared with the preceding years. (Vide Table IX). In half of the 14 cases admitted, the patients, too ill to be removed with safety to the Lazaret, died in this hospital. In three cases, serotherapy was resorted to but the disease was too far advanced to allow of any beneficial results being obtained beyond slight temporary reduction of temperature. Of the remaining half, six were transferred and one was successfully treated in one of the isolation huts of this hospital.

The case was that of a girl of 16, who resided at Desroches street in a house where dead rats had been found and two cases of plague had occurred shortly before. She was admitted on the 20th. of February with Fever and Bronchitis which ran a comparatively mild course, the temperature falling to the normal on the morning of the 22nd. On the evening of the same day, the temperature began to rise again without any apparent cause, and on the following day, a right femoral bubo was detected.

120 c. c. of Yersin's serum were at once injected intravenously, the injections were repeated on the following days, viz :—

February 24th.	120 c. c.	intravenously.
„ 25th.	100 c. c.	do.
„ 26th.	100 c. c.	do.
„ 27th.	50 c. c.	subcutaneously.

The temperature fell after each injection and fever completely disappeared after the 5th.

The bubo suppurated and the patient was discharged on the 16th. after an uneventful recovery.

I may add that her brother was admitted from the same place, viz : Desroches street, on the 22nd. of February, suffering from Plague, and died the same night.

This case affords an instance of recovery from Plague consequent on the early administration of Yersin's serum.

16.—Beri-Beri.—There were 7 cases as against 22 last year.

The following table gives the nationality of the patients and the places they came from :—

TABLE XX.

Nationality.	Cases.	From whence admitted.
Creoles... ...	Nil	
Chinese ...	3	Port Louis.
Indians ...	4	Three sailors of s.s. *Sh* : *Osborne*, one a laborer from Bambous, discharged some time before from Prison.
Total ...	7	

17—. Erysipelas.—There were 17 cases of Erysipelas as compared with 16 last year and 27 in 1906.

All the cases were imported from outside. There were three deaths. In one case, admitted with extensive erysipelas of the leg, the patient died a few hours after admission; in the two other fatal cases, the cause of death was extensive erysipelas of the face.

18.—Syphilis.—The following table which gives the admission for the last 7 years, shows a slight reduction in 1908 as compared with the two preceding years :—

TABLE XXI.

Years.	Admissions.
1902	110
1903	128
1904	142
1905	154
1906	175
1907	164
1908	150

The total number of cases treated was 155, classified as follows :—

XXII.

	Cases.	Deaths.
Inherited	1	......
Primary	75	......
Secondary	43	......
Tertiary	36	......
Total	155	......

The following comparative statement of non syphilitic venereal diseases for the last 5 years, shows a steady increase in the incidence of Gonorrhœa.

TABLE XXIII.

	1904.	1905.	1906.	1907.	1908.
Gonorrhœa...	81	57	93	115	120
Soft Chancre	34	19	27	32	34

Many of these were attended by severe articular complications and in one extreme case, the patient had been completely crippled beyond recovery by the infection.

In the majority of the cases of Gonorrhœal Rheumatism, the knee was affected.

The treatment that gave the best result was Bier's hyperhœmic method by means of the elastic bandage.

19.—Parasitic diseases.—Two parasitic diseases require special mention, viz : Ankylostomiasis and Chigger.

(a) **Ankylostomiasis.**—Owing chiefly to the systematic examination of the stools in cases of anœmia not satisfactorily accounted for by malaria or hæmorrhage, far more cases of ankylostomiasis were detected in 1908 than in previous years.

The following are the figures for the last three years :—

1906	14 cases
1907	19 „
1908	39 „

In fact, experience and improved methods of examination have conclusively shown that ankylostomiasis is more prevalent in this Island than was formerly suspected.

I have no doubt its prevalence would be found still greater, were the microscope more frequently resorted to in cases of anæmia of uncertain origin.

It is worthy of note that all cases which came under notice occurred on Indian labourers.

(b) **Chigger.**—One case of Chigger (*pulex penetrans*) was received in this hospital last year. The patient, a creole of Mauritius stranded in Madagascar, had been sent back to Mauritius by the British Consul and was removed directly from the French Mail to the Civil Hospital. He had both feet, and to a less extent the hands, infested with impregnated sand fleas.

20.—Obstetrical Returns by Dr. Sauzier, Assistant Medical Superintendent.

The number of women confined in hospital has been steadily increasing for the last seven years as is shown in the following table :—

TABLE XXIV.

1902.	1903.	1904.	1905.	1906.	1907.	1908.
48	36	58	51	45	60	74

These figures conclusively show the necessity of providing proper accommodation for cases of this description.

The difficulties under which, in the absence of a suitable maternity, cases of confinement are attended in this hospital are every year pointed out in the Annual Reports.

The deficiencies of this hospital in this respect have never been more conspicuous than has been the case this year.

There were 6 abortions as against 4 last year.

The confinements have been classified as follows :—

Normal (L. O. A. Presentations)	66
Premature	8
Total	74

The return of births with their classification is given in the following table :—

TABLE XXV.

Labours.	No. of confinements.	No. of children born.			
		Alive and discharged from hospital.	Still-born.	Dying after birth.	
1o. Full term (a) Normal ...	66	62	3	3	Total 76
(b) Complicated...	...	...	...	...	
2o. Premature	8	1	2	5	
Total	74	63	5	8	

76 births resulted from 74 confinements of which 8 were premature and 66 full term. Of the 66 full term deliveries, two were cases of twins.

There were 8 premature deliveries, attributable in 5 of the cases to chronic malarial fever complicated by anæmia and hypertrophy of the spleen.

Bright's disease, pneumonia and dysentery accounted for the other three.

Of the 76 children born in hospital during the year, thirteen died ; five of them being still-births. The remaining 8 died after birth from General Debility, most of them being prematurely born children.

Of the 63 discharged well from hospital, thirty were males and thirty-three females.

The mortality amongst the mothers was considerably less than last year ; only 4 mothers died in hospital, the causes of death in these cases being as follows :—

Malarial Fever	1
Chronic Dysentery	1
Lobar Pneumonia	1
Bright's disease	1
Total	4

These women were all admitted in a precarious condition, and were all prematurely delivered.

21.—Table of injuries.

There was no case of puerperal fever.

TABLE XXVI.

Injuries.	Cases.	Deaths.	Remarks.
(*a*) **General** :—Burns	1	1	Child 3½ years old accidentally burnt. Died day fter admission.
(*b*) **Local** :—Burns and Scalds ...	11		
„ —Bruise	67		
„ —Wound...	137		
„ —Sprain	12		
(*c*) **Dislocations** :—Radius & Ulna.	1		
„ —Shoulder ..	2		
(*d*) **Fractures** :—Skull	2	1	Died a few hours after dmission.
„ —Malar Bone ...	1		
„ —Sup : Maxilla ...	1		
„ —Scapula	1		
„ —Clavicle	1		
„ —Humerus	1		
„ —Radius	3		
„ —Radius and Ulna...	3		
„ —Phalanx	3		
„ —Ribs	3		
„ —Femur	6		
„ —Patella	1		
„ —Tibia	6		
„ —Tibia and fibula ...	7		
(*e*) **Gun-shot Wound**	1		Suicidal—involving chin, tongue and upper jaw—patient recovered.
(*f*) **Foreign body**	6		

22.—Surgical Work.

There were 861 surgical operations, of which 300 were performed under chloroform.

The following comparative statement of operations made with and without anæsthetics, shows how far the surgical work done in 1908 exceeded that recorded in previous years :—

TABLE XXVII.

	1902.	1903.	1904.	1905.	1906.	1907.	1908.
Chloroform	98	149	162	165	139	192	300
Cocaine...	38	58	55	40	92	89	86
Chloride of Ethyl (local)	10	15	34	78	255	99	106
Without Anæsthetics ...	79	200	262	249		266	369
Total ...	225	422	513	532	486	646	861

These figures demonstrate with sufficient eloquence the rapid advances in the surgical practice of the hospital. In fact, the surgical demands on the institution have now become so extensive as to call for the organisation of a more efficient staff than presently obtains. The difficulties encountered by the Assistant Medical Superintendent and myself in our endeavour to cope successfully with such a large number of surgical cases were considerable. The consequent overwork was beyond physical endurance and we nearly broke down under the strain.

We are practically two to do the whole work for, owing to the nature of his duties, the Police Surgeon is rarely available for assistance, so that most of the operations, even the serious ones, had to be made with insufficient or incompetent assistance, viz : that of ordinary warders or nurses.

A few grave interventions (Laparotomy, &c,,) could only be attempted thanks to the valuable assistance of Drs. de Chazal and Ferrière.

TABLE XXVIII.

Return of Surgical Operations.

Nature of Operation.	No.	Deaths.	Remarks.
1.—Removal of Tumours.			
(*a*) Non Malignant :—			
Uterine polypus	2		
Sebaceous cyst	7		
Fibroma	7		
Papilloma	3		
Cystic Fibroma (thigh) ...	1		
Lipoma	1		
(*b*) Malignant :—			
Epithelioma	1		
Scirrhus of Mamma	3		
2.—Amputations.			
Arm	1		
Fingers	7		
Leg	2		
Toes	4		
3.—Operations on Bones.			
(*a*) Excision of fragments of bone for caries and necrosis :—			
Scapula	1		
Humerus	4		
Olecranon	1		
Metacarpal bone	1		
Ribs	2		
Great Trochanter	1		
Tibia	7		
Fibula	1		
Calcaneum	1		
Metatarsal bone	2		
Lower jaw	3		
(*b*) Wiring of Tibia and Fibula for non united fracture.	2		
(*c*) Breaking down of callus for badly united fracture of femur ...	1		
(*d*) Reduction of Fracture :—			
Femur	1		
Tibia	1		
4.—Operations on Joints :—			
(*a*) Aspiration for suppurative Arthritis	5		
(*b*) Arthrotomy	1	1	Died of Tubercular Arthritis.
(*c*) Reduction of Dislocation :—			
Shoulder	2		
Lower jaw	1		
5.—Operations on Muscles and Tendons :—			
Excision of sloughing Muscles and Tendons	4		
Carried over...	81	1	

TABLE XXVIII.—(*Continued*).

Nature of Operation.	No.	Deaths.	Remarks.
Brought forward...	81	1	
6.—Operations on the eyes :—			
Cataract	19		
Excision of eye-ball	5		
Catheterisation of lachrymal duct	1		
Operation for dacryocystitis	4		
7.—Operations on the ear :—			
Trephining of mastoid cells for suppurative mastoiditis	4		
8.—Operations on the head, face and neck :—			
Closing of frontal sinus	1		
Scraping of granulation in the nose	1		
Excision of Nasal Polypi	2		
Tracheotomy	1	1	Died of Laryngeal Diphtheria.
Enucleation of Goitre	1		
9.—Operations on the throat :—			
Scraping for Adenoids	1		
Tonsillotomy	1		
Thermocauterisation of tonsils	1		
10.—Operations on Chest .—			
Excision of suppurating Gumma	1		
Paracentesis Thoracis	1		
Thoracotomy for Empyœma	4		
11.—Operations in abdominal cavity :—			
Paracentesis for Ascitis	21		
Radical cure of Inguinal hernia	3		
Suppurative appendicitis	1		
Perityphlitic abscess (fœcal)	1		
Posterior gastro enterostomy	1	1	Died of shock.
Enterostomy for Intestinal obstruction	1	1	Survived the operation 16 days.
Exploratory Laparotomy	4		
Repair of abdominal wall	1		
Operation for Liver abscess	26	2	
„ Hæmorraghic cyst of Liver	1		
Exploration for Liver abscess	5		
Subphrenic abscess	1		
Perisplenic abscess	1		
Pelvic abscess	6		
12.—Operation on Rectum and Anus :—			
Fistula in Ano	9		
Anal fissure	3		
Excision of piles	5		
13.—Operations on Urinary Organs :—			
Supra-pubic Cystostomy :			
(*a*) for vesical calculus	1		
(*b*) for gangrene of bladder	1	1	
Perineal Lithotomy	2	1	Died of purulent cystitis.
Extraction of urethral calculus	1		
Litholapaxy	2		
Cystoscopy	1		
Supra-pubic puncture of bladder for retention of urine	1		
Scarification for extravasation of urine	1		
Urinary fistulæ	8		
Rupture of urethra	1	1	Died of Cardiac failure.
Urethrotomy :			
(*a*) External	2		
(*b*) Internal	2		
Dilatation and catheterisation of urethra for stricture	11		
Carried over...	253	9	

TABLE XVIII.—(*Continued*).

Nature of Operation.	No.	Deaths.	Remarks.
Brought forward...	253	9	
14.—Operations on Male generative organs :—			
Circumcision	27		
Tapping for hydrocele	17		
„ hæmatocele	1		
Radical cure of hydrocele	12		
Operations for suppurative orchitis...	13		
Amputation of penis	1		
Reduction of paraphymosis ...	2		
15.—Operations on Female generative organs :—			
Curetting of uterine cavity... ..	7		
Colpo-perineorrhaphy (posterior) ...	4		
„ „ (anterior) ...	1		
Aspiration of Pyosalpinx	1		
Recto Vaginal fistula	1		
Abdominal Hysterectomy	1		
Salpingectomy	1	1	Died of Peritonitis.
Amputation of Cerix uteri	1		
Extraction of retained placenta ...	1		
Exploration for pelvic cellulitis ...	1		
16.—Operations on Arteries & Veins :—			
Ligature of sub-lingual artery ...	1		
„ radial „ ...	1		
„ palmar „ ...	2		
„ plantar „ ...	1		
„ superficial veins of arm ...	2		
17.—Operations on Lymphatic Glands :—			
Scraping of suppurative glands ...	1		
Enucleation of Glands	5		
18.—Operations on Skin and Subcutaneous Tissue :—			
Incision of whitlow	1		
Excision of Condylomata	2		
Scarrification for gangrenous cellulitis			
Buttock...	1		
Foot	14	1	
Leg	3		
Arm	3		
Scrotum	2		
Excision of ingrown toe nail ...	4		
Scraping of phagedœnic ulcers ...	5		
Incision of Carbuncles	3		
19.—Operations on abscesses & sinuses :—			
(*a*) Head and neck :—			
Scalp	6		
Sub-temporal	3		
Chin	3		
Floor of mouth (Angina Ludovici)	1		
Lip	1		
Neck	18		
Thyroid	2		
Gum Boil	4		
Sub-axillary	2		
Cheek	6		
(*b*) Thorax :—			
Chest wall	6		
Sub-mammary	1		
Mammary	12		
Pectoral	1		
Carried over ...	462	11	

TABLE XVIII.—(*Continued*).

Nature of Operation.	No.	Deaths.	Remarks.
Brought forward ...	462	11	
(*c*) Abdomen and Pelvis :—			
Abdominal wall	7		
Supra-pubic	2		
Back	9		
Lumbar	8		
Iliac	8	1	
Psoas	6		
Pelvic	4	1	
(*d*) Upper Extremities :—			
Scapula	2		
Axillary	18		
Shoulder	2		
Arm	23		
Elbow	4		
Wrist	2		
Hand...	9		
Fingers	4		
(*e*) Lower Extremities :—			
Gluteal	17	1	Died of Tuberculosis.
Hip	2		
Femoral	31		
Popliteal	7		
Leg	29		
Knee (peri articular) ...	7	1	Died of General Tuberculosis.
Foot	20		
Ankle	7		
Toes	1		
Inguinal	64		
(*f*) Genito urinary :—			
Perineal and Ischio rectal ...	31		
Scrotal	23		
Peri-urethral	1		
Penis	3		
Vulva	2		
(*g*) Sinuses	10		
20.—Removal of foreign Bodies			
Foot	1		
Hand	2		
Buttocks	4		
21.—Suturing of wounds	29		
Total ...	861	15	

(*a*) **Tumours** :—There were 17 cases of Malignant tumours, but in only five could operative treatment be applied.

In the remaining cases, the patients either refused operation or the disease was too far advanced to justify an intervention.

In the cases operated upon, specimens of the tumours were sent to the Cancer Research Committee.

The following is a classification of the Malignant tumours which came under notice together with the age, sex and origin of the patients affected.

TABLE XXIX.

Tumours.	Seats.	Cases.	Origin of patients.	Age.	Sex.	Remarks.
Sarcoma ...	Breast	1	Creole	58	f.	Refused operation.
	Thigh	1	Creole	49	m.	Inoperable.
	Scapular region	1	Indian	55	f.	„
	Neck	1	Indian	42	m.	„
Osteo Sarcoma ...	Jaw	1	Indian	22	f.	„
Lympho Sarcoma..	Eyeball	1	Creole	18	m.	Inoperable and attended by multiple sarcomas in various regions of the body.
Carcinoma ...	Breast	4	Creole	60	f.	Successfully removed.
			Creole (white)	56	f.	
			Indian	54	f.	
			Creole	61	f.	Refused operation.
	Neck	1	Europ.	60	m.	Inoperable.
	Jaw (upper)	1	Chinese	49	m.	„
	C. uteri	1	Indian	50	f.	Refused operation.
	Larynx	1	Creole	54	m.	Inoperable.
Epithelioma ...	Face	1	Creole	57	m.	Successfully removed.
	Penis	1	Indian	38	m.	Amputation of penis successfully performed.
	Jaw	1	Creole	72	m.	Operated on but recurred during cicatrisation.

(*b*) **Amputations** :—Amputation of the arm at the junction of the upper with the middle third was made in an interesting case of extensive suppurative lymphangitis of the fore-arm and arm, of filarial origin.

The patient was an old gentleman of about 75 years of age, who was admitted in a very precarious state with fever subdelirium, emaciation and great debility.

The hand, fore-arm, elbow and part of the upper arm were enormously swollen. Free incision and drainage having failed to relieve the condition, amputation was considered the only alternative left to rescue the patient from impending death.

The operation was performed under A.C.E. mixture (about half an hour after an hypodermic injection of Morphia) and had to be completed in ten minutes. In spite of the patient's state, there was no shock, the fever subsided and union took place by first intention in a week.

Five days after the operation, lymphangitis of the scrotum set in attended by elephantoid fever and ending in suppuration. The patient ultimately recovered. The Filaria nocturna was detected in his blood.

(*c*) **Abscess of the Liver** :—One of the most noteworthy facts in this year's return, is the considerable increase over previous years in the number of cases of Liver abscess, the figures since 1902 being as follows :—

TABLE XXX.

1902.	1903.	1904.	1905.	1906.	1907.	1908.
3	8	11	12	6	10	26

It is interesting to compare the great prevalence of Liver abscess recorded in 1908 with the corresponding one referred to above in the case of Dysentery.

In the great majority of the cases, there was a clear history of dysentery. In spite of this large number, only two deaths occurred in hospital. Three cases removed at the special request of the patients and that of their relatives, died at home. The remaining 21 cases recovered.

In only one case was resection of ribs found necessary. In the others, free incisions long enough to admit two large drainage tubes, answered the purpose.

Whenever the pus was found thick and creamy, cupping after Bier's method was successfully resorted to.

(*d*) Laparotomy.

Laparotomy was performed in the following cases :—

1o. Exploratory...	4
2o. For posterior Gastro-Enterostomy...	1
3o. Enterostomy for intestinal obstruction ...	1
4o. Repair of abdominal wall for eventration after ovariotomy performed two years ago	1
5o. Hysterectomy ...	1
6o. Salpingectomy...	1

The case which necessitated Enterostomy for intestinal obstruction is recorded in the appendix.

Posterior Gastro-Enterostomy was performed *en dernier ressort* in a case of pyloric obstruction attended by dilatation of the stomach, anæmia and debility. Patient died of shock 48 hours after the operation.

Hysterectomy was performed in a case of multiple uterine Fibroma and the patient made an uneventful recovery.

In the case of Salpingectomy, the operation was made for a large pyosalpynx which had contracted firm adhesions with the neighbouring organs. The patient died of pelvic peritonitis four days after the operation.

(*e*) Operations for abscesses.

The number of abscesses of all descriptions that were operated on amounted to 447 as against 300 last year and 295 in 1906.

This to a large extent account for the increase in the number of surgical operations.

An unusually large proposition of these abscesses were deep seated, extensive and severe.

A case of Pelvic (Perirectal) abscess deserves special mention.

The patient, an old Creole woman of 65 years, was suffering from a large fluctuating tumour above the pubis, with pressure symptoms on the bladder and rectum.

On pus being discovered by aspiration, a free incision was made and the cavity drained.

The abscess was deeply seated in the pelvis in intimate connection with the rectum and sigmoïd flexure. As there was a recent history of dysentery, the condition was no doubt due to the perforation of a dysenteric ulcer, causing pelvic peritonitis and localised suppuration.

Patient rallied quickly after the operation, and was discharged 16 days after, perfectly cured.

A number of cases of acute abscesses were successfully treated after a new method described by Dr. Philips of Bradford, in the British Medical Journal of May 1908.

The only modification I have introduced to this method is the use of Hydrogen Peroxide, for the swabbing of the abscess wall after evacuation. The aim of this method is to bring about as much as possible asepsis in the abscess cavity and the union by first intention of its wall.

That this aim is achieved, is proved by the great number of cases, about fifty in this hospital, including Ischio rectal abscesses, successfully treated on the principles laid down by the author.

(*f*) Notes of a case of *Cystic Bronchocele* in which enucleation was performed and of one of *Intestinal Obstruction* caused by a twisted and displaced spleen are given in the appendix.

23.—Laboratory Work.

Summary of Laboratory work done at the Civil Hospital in 1908.

BACTERIOLOGICAL.

Specimens.	Nature of Research.	Nos.
Sputum	Plague Bacilli ...	4
Smear preparations from Spleen and Buboes. P. M.	do. ...	5
Sputum	Tubercle	689
Urinary Sediment	do.	1
Urethral discharge	Gonococcus...	12
Urinary Sediment	do.	16
Do.	Bilharzia	56
Do.	Filaria	2
Blood Films	Malaria Parasites	17
Do.	Filaria	6
Stools	Ankylostoma	166
Cerebro-spinal fluid	Diplococcus intra cellularis	2

NON BACTERIOLOGICAL.

1.	Ennumeration of white corpuscles	1
2.	Quantitative analysis of urine	86
3.	Microscopical examination of urine sediment ...	22
4.	Radiographs...	42
5.	Radioscopic examinations	10

The small laboratory attached to the Civil Hospital, although much reduced by the transfer of the greater part of its plant to the Bacteriological Laboratory at Réduit, has rendered valuable services under the management of Mr. Lebrasse, who spared no pains to give the medical officers every assistance in elucidating by microscopical examination, obscure or doubtful cases.

The number of examinations of sputum for Tubercle bacilli amounted to the unprecedented number of 689, more than double the number of similar examinations made last year.

Stools were examined in 166 cases for eggs of ankylostomas as against 60 such examinations in the preceding year.

I have already referred to the necessity of the systematic use of the microscope as a means of detection of the true origin of anæmia, which cannot be explained by malaria or hæmorrhage.

The number of Radiographs taken during the year both for the hospital and for the public, has likewise been on the increase, viz : 42 as against 33 last year.

APPENDIX.

Case I. Enucleation of Cystic Bronchocele.—Indian woman, 25 years, married, admitted on 21st. of July 1908 with a large fluctuating tumour occupying the whole of the anterior aspect of the neck and freely moveable over the trachea.

According to the patient's statement, it was first noticed about six years ago when of the size of a nut, and had been steadily growing since.

On admission, the tumour presented two lateral lobes, separated by a vertical shallow groove, the left lobe being by far the largest of the two.

In spite of its size, the tumour gave rise to no inconvenience beyond that caused by its weight and some difficulty in breathing when the patient was lying on her back. There was no dysphagia, palpitation or any alteration in the voice.

The patient wishing to get rid of this enormous and unsightly mass, enucleation was performed on the 28th. of July.

The incision selected was the transverse curved one with convexity downwards. The tumour could be shelled out only with great difficulty owing to its deep connections and the great number of blood vessels encountered in the dissection.

The resulting cavity extended downwards to behind the manubrium sterni and left clavicle, in which region the subclavian artery could be distinctly seen pulsating.

The tumour after its removal was of the size of a small cocoanut. It consisted of two distinct cysts, one of about twice the capacity of the other, separated by a vertical partition containing a blackish fluid resembling very much that of hœmatocele.

At the posterior part of each cyst and projecting into the cavity, there was a colloidal mass like thyroid tissue. However, the thyroid gland proper could be seen *in situ* after the tumour had been enucleated.

There was little shock, and the hæmorrhage was slight, considering the numerous blood vessels met with in the course of the dissection.

In the oozing which followed the enucleation, small air bubbles were seen now and then, no doubt the result of a minute tear accidentally made in one of the intercartilaginous spaces of the trachea.

The incision was partly closed by silk worm sutures, and the cavity drained by a piece of Iodoform gauze.

On the following day, July 29th., the temperature rose to 38 ° C and on the 30th. it reached 39 °.

The dressing was then removed ; suppuration had set in and there was marked cellulitis all over the front of the neck.

A few stitches were removed and the whole cavity swabbed with hydrogen peroxide and a rubber drainage tube introduced.

On the 31st., the temperature ranged between 38 ° and 38. ° 5. There was marked alteration in the patient's voice attributable in all probability to injury to the recurrent Laryngeal nerve in the dissection. From the 1st. of August, the cellulitis gradually subsided, the temperature fell and suppuration gradually diminished. On the 5th., the fever ceased completely. On the 10th., the drainage tube was removed, and on the 18th., the patient was considered completely cured. The voice had gradually returned to its normal pitch.

This case is reported as an illustration of the first operation of this nature ever made at the Civil Hospital.

It is interesting on account of its rarity and the grave complications to which this intervention is liable. In spite of the strictest aseptic precautions taken, suppuration and cellulitis could not be avoided. The question is whether the infection could not have been effected through the microscopic tear in the trachea.

Case II. Splenomegaly—Torsion of the Spleen.—Its separation into two segments.—Displacement of the lower segment.—Intestinal obstruction.—Enterostomy.—Death.

S. I. indian laborer, aged 19, admitted on the 5th. of December 1908 in an emaciated and cachectic condition, and with marked symptoms of intestinal obstruction. The history was briefly as follows :—

One week before admission he had a strong attack of fever attended by abdominal pains ; he took castor oil and Epsom salts on consecutive days and was well moved.

Since the 1st., he had had no evacuation in spite of another dose of castor oil followed by enemata. The vomiting began on the 4th. and persisted ever since.

On admission, the abdomen was moderately distended and slightly tympanitic.

The left iliac region presented a large tumour, hard and tender on pressure, firmly fixed in the iliac fossa, and extending from the middle line to a point midway between the anterior superior spine and the costal margin. Its free upper border was rounded and could be distinctly felt. This tumour according to the patient's statement, had been lying there for about eight or nine years.

I at once thought of a hypertrophiced spleen displaced downwards and obstructing an intestinal loop, by pressure against the pelvic wall. Careful exploration of the splenic region, however, revealed the presence of a flattened, elongated mass, situated behind the mid axillary line and feeling like a spleen slightly enlarged and displaced backwards. The lower pole of this mass lay in contact with the upper and posterior part of the iliac tumour, but could be separated from it.

The question now arose whether the enlarged tumour was a displaced spleen, and the mass felt higher up, an enlarged kidney pushed upwards, or whether the case was one of a pelvic neoplasm displacing an otherwise normal spleen slightly backwards.

The patient was stimulated and the vomiting becoming stercoral and enemata, administered high up by the rectal tube, failing to relieve the condition, a rapid attempt at right Colotomy was made.

The patient's condition at the time was too low to justify a more serious intervention.

Colotomy however could not be performed, as all the loops that were accessible through the incision were found collapsed. The patient was again stimulated and twelve hours after, median laparotomy was made *en dernier ressort*. After a rapid exploration of the abdominal cavity which showed in the left iliac fossa a large tumour adherent to the abdominal wall, and resting on a mass of collapsed intestinal coils, a distended intestinal loop as near the obstruction as possible, was seized, incised and evacuated by means of a Paul's tube, and the margin of the opening stitched to the abdominal wound.

The patient rallied wonderfully after the operation ; vomiting ceased, liquid food was well tolerated and on the 7th. semi solid fœces were passed by the tube. Unfortunately the improvement was of short duration, the evacuations through the tube soon became diarrhœic and from the 15th. patient gradually sank.

He died on the 22nd. from sheer exhaustion. He had survived the operation sixteen days. The temperature had remained normal or slightly subnormal throughout.

Post-Mortem Examination :—

The spleen lay under the left dome of the diaphragm, a little behind its normal situation. It had no notch and the pedicle presented nothing particular. Its lower extremity descended as far as the iliac tumour to the upper part of which it was attached by a fibrous cord.

The tumour occupied the whole of the iliac and part of the hypogastric and left lumbar regions ; it was adherent anteriorly to the abdominal wall, behind to the wall of the pelvis, above to the Jejunum and to the right and below to a mass of collapsed intestinal coils.

The tumour was oval shaped and when *in situ*, its long axis was parallel with Poupart's ligament. The adhesions of the tumour to the neighbouring tissues were old standing so that its separation could only be effected with great difficulty.

After removal, the spleen and tumour presented the appearance shown in the photograph.* The spleen proper measured 14 c.m. in length, 8 c.m. in width and 3 c.m. in thickness and weighed 160 grammes.

The tumour was 12½ c.m. long, 10 c.m. broad and 7 c.m. thick and weighed 325 grammes. The latter's capsule was smoother and tenser than that of the spleen which was wrinkled.

Its substance which had the consistence and naked eye appearance of spleen, was subsequently ascertained by microscopical examination to consist of splenic tissue. The connection was a fibrous cord having 2½ c.m. in circumference.

The intestinal coils on which rested the tumour were matted together, collapsed and adherent to the recto-vesical fossa. They formed part of the ileum, the matting commencing at about 3 inches from the cœcum. Seven feet of ileum were thus matted together and pressed against the pelvic wall by the overlying tumour, the unquestionable cause of the obstruction.

The Enterostomy had been performed in the ileum at about one foot above the obstruction.

The colon, especially the transverse colon, was completely collapsed and reduced to the size of a thumb.

The Jejunum, on the other hand, was considerably dilated ; the duodenum was more than two inches in diameter.

The great omentum was thin, entirely free from fat and adherent to underlying parts.

The liver was fatty and the other organs presented nothing abnormal beyond being pale and almost bloodless.

An explanation which this peculiar condition suggests is the following :—Probably the organ had originally an abnormally deep notch and when hypertrophied, the part below the notch was some way or other subjected to long continued slow torsion, which resulted in the gradual degeneration of the twisted part of the splenic tissue and in the ultimate formation of the present fibrous cord with the consequent separation of the organ into two segments.

The lower segment descended into the pelvis and subsequently derived its nutrition entirely from the peritoneum with which it had contracted numerous adhesions.

28th. May, 1909.

F. A. ROUGET, M.D., (Edin.),
Medical Superintendent,
Civil Hospital.

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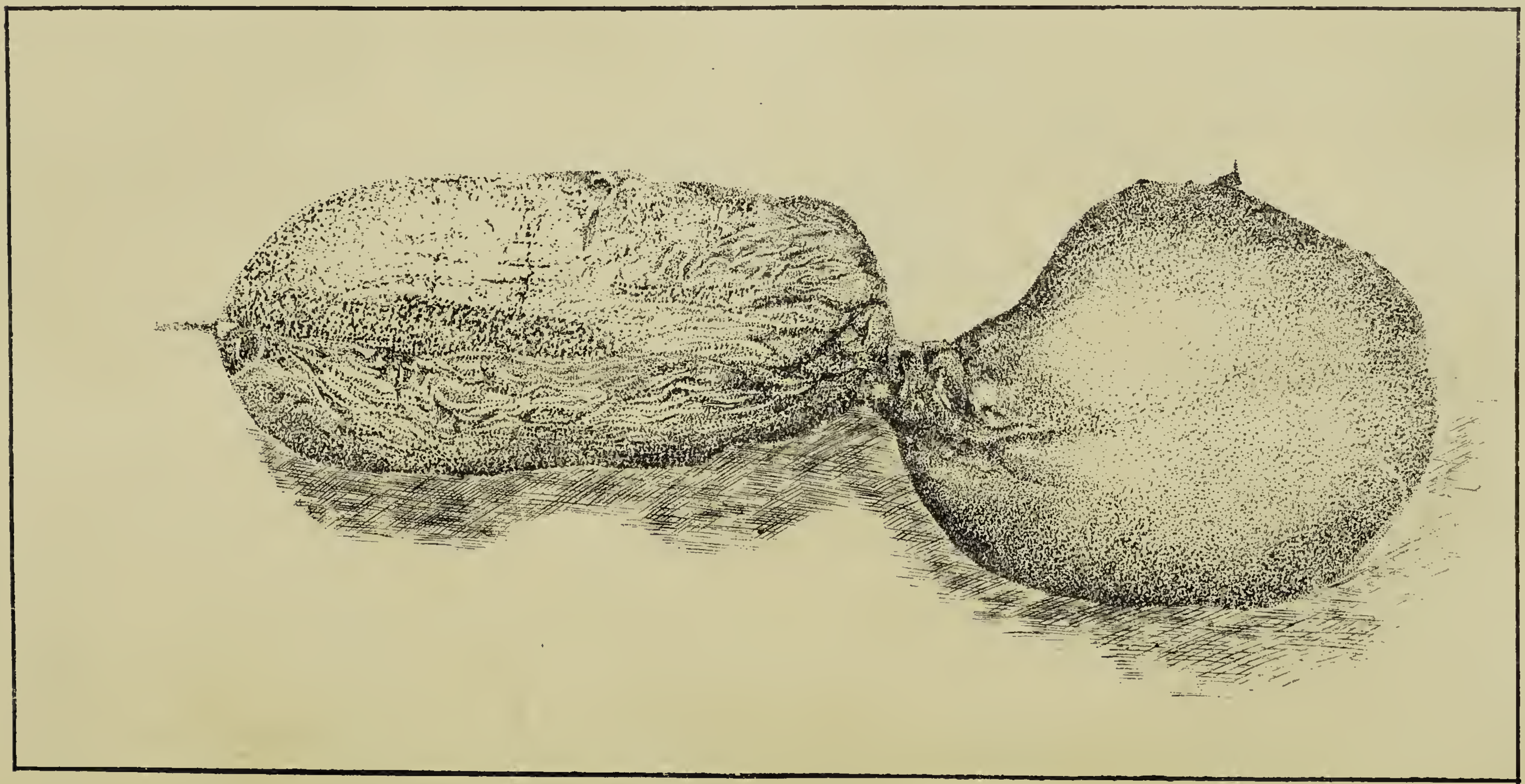
* Reproduced.



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ANNEXURE VIII.

Report of Dr. J. I. Paddle, Medical Superintendent, Lunatic Asylum.

I. General returns of Lunatic Patients.

1. The inmates of the Lunatic Asylum on 31st. December 1907 may be classified as follows :—

	Europeans.	Creoles.	Indians.	Chinese.	Total.
Males	2	123	136	8	269
Females	...	107	59	...	166
Total ...	2	230	195	8	435*

2. On 31st. December 1908 the following patients were in the Lunatic Asylum :—

	Europeans.	Creoles.	Indians.	Chinese.	Total.
Males	1	125	131	7	264
Females	...	110	57	...	167
Total ...	1	235	188	7	431

and the following harmless imbeciles at the Barkly Asylum, Lunatic Branch Wards :—

	Europeans.	Creoles.	Indians.	Chinese.	Total.
Males	...	26	39	5	70
Females	...	13	16	...	29
Total ...	...	39	55	5	99

3. The daily average of inmates in 1908 was as follows at the Lunatic Asylum :—

Males	266.20
Females	167.75
Total...	433.95

showing a total increase of 3.11 in the daily average over that of 1907.

There has been an increase of 7.85 in that of the males and a reduction of 4.74 in the females.

The greatest number of male patients confined at one time in the Asylum was 273 and that of the females 171.

4. There were 26 (23 male and 3 female) criminal lunatics under detention in the Lunatic Asylum in 1908 or 5.96 o/o of the daily average.

Of these patients, 4 males and 1 female were admitted, and 1 male died. 3 males were discharged on probation by order of His Excellency the Governor, and two male patients, whose time of imprisonment had expired, were transferred to the class of ordinary lunatics ; leaving a remainder of 17 male and 3 female criminal lunatics on 31st. December 1908.

5. The daily average of harmless imbeciles at the Barkly Asylum, Lunatic Branch Wards, was as follows :—

Males	68.8
Females	29.2
Total...	98.0

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* Including one male patient under observation, subsequently found to be insane.

6. Return of the mental diseases of the patients in the Asylum in 1908 :—

Mental Diseases.	Remaining at end of 1907.	Yearly Total.		Total cases treated.	Remaining at end of 1908.
		Admissions.	Deaths.		
Idiocy	15	11	1	26	20
Mania	225*	78	17	303	224**
Melancholia	34	9	3	43	30
Dementia	113	9	9	122	112
Delusional insanity ...	48	1	2	49	45
Total ...	435	108	32	543	431
Admitted on interim order but found sane by Commissioners in Lunacy	...	4	...	4	...
Total ...	435	112	32	547	431

7. The following were the admissions in 1908 :—

	Europeans.	Creoles.	Indians.	Chinese.	Total.
Males ...	...	31	38	2	71
Females ...	...	25	16	...	41
Total ...	...	56	54	2	112

Showing a decrease of 11 in the male, but an increase of 4 in the female admissions on those of 1907.

63 (40 males and 23 females) were 1st. admissions.
9 (4 males and 5 females) were 2nd. admissions.
6 (4 males and 2 females) were 3rd. admissions.
29 (18 males and 11 females) were re-admissions from probation.
1 male was re-admitted from those transferred to the Barkly Asylum, Lunatic Branch Wards.
4 males were found sane by the District Commissioners.

8. Districts from which the patients were admitted.

Port Louis ...	36
Plaines Wilhems ...	38
Flacq... ...	5
Grand Port ...	9
Savanne ...	3
Moka ...	11
Black River...	4
Rivière du Rempart...	0
Pamplemousses ...	6
Total...	112

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* Including 1 male patient not yet reported upon by the Commissioners in Lunacy, but since found to be insane.

** Exclusive of a chinaman who absconded some time ago and who has never been recaptured.

9. The following causes were assigned to the mental diseases of 59 of the admissions :—

Epilepsy	9
Hysteria	1
Drink	6
Gunjah smoking	9
Heredity	11
Mental worry	6
Fever	4
Old age	6
Grief	1
Vicious habits	2
Religious excitement	4
Total...	59

Heredity, gunjah smoking and epilepsy were the prevailing of the ascertained causes, but it is probable that frequent attacks of malarial fever and privations may have been determining causes in many of the others.

10. There were 84 discharges, or 1 less than in 1907. They consisted of the following :—

	Europeans.	Creoles.	Indians.	Chinese.	Total.
Males ...	...	18	37	3	58
Females ...	...	14	12	...	26
	...	32	49	3	84

11. These discharges may be further classified as follows :—

	Cured.	Relieved.	Not improved.	Total.
	Finally discharged.	Discharged on probation to the care of relatives or friends.	Transferred to the Barkly Asylum, Lunatic Branch Wards.	
Males	13	37	8	58
Females	...	19	7	26
	13*	56	15	84

12. Fourteen (5 male and 9 female) patients were finally discharged from those who had previously been discharged on probation, and thus allowed to resume their civil rights.

Two patients (1 male and 1 female) were discharged on probation from among those already transferred to the Barkly Asylum, Lunatic Branch Wards.

13. The percentage of recoveries (cured and relieved) on admissions was 61.6 or 1.42 o/o less than in 1907.

The percentage on daily average was 15.8 or 1.6 o/o less than in same year.

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* Including 4 males found by the District Commissioners not to be insane at the time of their examination.

14. The total number of lunatics in the Colony on 31st. December 1908 was as follows :—

	At the Lunatic Asylum.	At the Barkly Asylum, Lunatic Branch Wards.	Discharged on probation.	Total.
Males	264	70	50	384
Females	167	29	27	223
Total ...	431	99	77	607

This number, plus that of the chinaman referred to in the note of section 6 of this report, brings up the total to 608 certified lunatics and imbeciles in the Colony ; giving a proportion of one insane to 615 of the population or 1.62 per 1,000, indicating a slight increase of .03 o/o on the return of 1907.

In England the proportion of insanes is 1 in 300 of the general population.

15. The ratio of male and female insane to total population of each sex was as follows :—

Male insane 1.92 o/oo of male population.

Female insane 1.27 o/oo of female population.

The proportion of female insane to female population is exactly the same as in 1907, while that of the male class has slightly increased (by .04 o/o) The preponderance of the male insanes continues to be marked, whereas in English Lunatic Asylums the sexes of such patients are in nearly equal proportion, the female element even slightly exceeding the male.

16. The insane rate per 1,000 of each class of the community, as based on returns of population on 31st. December 1908 kindly supplied by the Registrar General, was as follows :—

	Total insane.	Insane rate in 1908.	Insane rate in 1907.
General Population ...	314	2.91 o/o	1.806 o/o
Indian	278	1.06 „	1.09 „
Chinese	16*	3.23 „	2.66 „
Total ...	608	......	......

In 1908, as in the previous year, the insane rate was least in the Indian population. †

In this class of the community the rate per 1,000 has tended to a slight decrease, while a marked increase from 1.806 to 2.91 has been observed in the general population. ‡

This relative increase may in a great measure be accounted for by the privations and difficulties of existence which prevailed in 1908 among the poorer classes of this section of the population, in consequence of the recent financial crisis of the Colony.

These adverse circumstances have not apparently materially affected the Indian population, as the greater number being employed on sugar estates have been free from the cares and mental strain of the other class.

A certain increase was also observed in the Chinese rate; but as I pointed out in my last report, no definite conclusions can be drawn therefrom, owing to the relatively small numbers dealt with.

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* Including the escaped chinaman.

† According to Lyon (Medical Jurisprudence for India) the general insane rate in India is only 1 per 2,000.

‡ And this notwithstanding an increase of 339 in the general population and a decrease of 2,433 in that of the Indians of the Colony, which should on the contrary have diminished the insane rate of the first class and raised that of the second.

17. There were 32 deaths (17 males and 15 females) in the Lunatic Asylum in 1908, or 9 more than in the previous year.

The inmates who died were of the following classes of the population :—

	Europeans.	Creoles.	Indians.	Chinese.	Total.
Males	1	10	6	...	17
Females	...	9	6	...	15
Total ...	1	19	12	...	32

The death-rate on daily average was 7.3 o/o or 2 o/o higher than in 1907.

The average death-rate for the last 5 years has been 6.8 o/o.

This is about the same as that of the New Zealand Mental Hospitals which was 6.65 o/o in the years 1903-1907.

It bears favourable comparison with the death-rate of the Asylum of England and Wales which is about 10 o/o while in some of the Indian Mental Hospitals the death-rate is as high as 12 o/o.

18. Ages of the patients who died.

Ages.	Number of patients.
10 to 20	...
20 to 30	2
30 to 40	9
40 to 50	8
50 to 60	7
60 to 70	3
70 to 80	3
80 to 90	...
Total ...	32

19. Causes of deaths.

Debility	14
Dysentery	4
Cerebral Congestion	4
Tuberculosis	2
Bronchitis	2
Influenza	2
Malarial fever	1
Abscess of liver	1
Diarrhœa	1
Tetanus (traumatic)	1
Total ...	32

20. 17 of those who died had been admitted into the Asylum in a delicate state of health ; two of them were almost octogenarians.

Five patients died within 6 months of their admission.

The average stay in the Asylum of the patients who died was 5.3 years. One of them had been 36 years an inmate of the Asylum.

1 male and 4 female patients died at the Barkly Asylum, Lunatic Branch Wards, and 1 male among those discharged on probation.

II. Prevalence of Sickness.

21. The total number of admissions into the Infirmaries of the Lunatic Asylum was 489 (322 in the male and 167 in the female Infirmary) or 12 more in the first and 11 in the second Infirmary than in 1907.

22. The daily average of sick for the last 5 years was as follows :—

	1904.	1905.	1906.	1907.	1908.
Male Infirmary	10.81	16.10	16.11	17.14	16.6
Female Infirmary	14.76	11.72	13.21	12.67	9.8
Both Infirmaries	25.57	27.82	29.32	29.81	26.4

Although there was an increase in the total number of admissions the daily average of sick treated for other diseases than insanity was ·54 lower among the males and 2.87 among the females than in 1907. The daily average of sick among those of the inmates who had been admitted into the Infirmaries within one month of their admissions into the Asylum was only 1 in 1908, as compared with 2.66 in the previous year.

23. The sick rate on daily average strength of the Asylum and the case-mortality on total cases treated were as follows in the last 5 years :—

	1904.	1905.	1906.	1907.	1908.	Average of 5 years.
Sick rate ...	6.2 o/o	6.8 o/o	6.99 o/o	6.92 o/o	6.08 o/o	6.59 o/o
Case-mortalily ...	5.08 o/o	7.1 o/o	6.8 o/o	4.6 o/o	6.5 o/o	6.01 o/o

The sick rate among the inmates who had been more than one month in the Asylum was as follows :—

1904.	1905.	1906.	1907.	1908.
5.83 o/o	5.98 o/o	5.66 o/o	6.3 o/o	5.85 o/o

Eliminating the factor of disease contracted outside the Institution, and which we may suppose as still capable of showing its effects within a month of the admission of a patient, we may fairly gauge the sanitary condition of the Institution by the daily average of sick and the sick rate among those of the inmates who have resided therein for a longer period. We find that, as stated in my last report, although there had been a gradual increase in these rates since 1903, there has been a tendency to an improvement in that respect in 1908.

24. The monthly admissions into the Infirmaries, total stay and average stay per patient, and deaths were as follows :—

Months.	Male Infirmary.	Female Infirmary.	Total.	Deaths.
January	24	16	40	1
February	33	24	57	4
March	35	16	51	3
April	23	11	34	4
May	32	17	49	5
June	15	10	25	...
July	24	9	33	2
August	25	5	30	3
September	35	15	50	2
October	21	13	34	1
November	26	19	45	5
December	29	12	41	2
Total	322	167	489	32
Total stay	6,076	3,606	9,682	
Average stay per patient... ...	18.8	21.5	19.7	

25. Admissions into the Infirmaries in each quarter of 1908.

First quarter	148
Second quarter	108
Third quarter	113
Fourth quarter	120
Total	489

26. Monthly admissions for malarial fever, dysentery, diarrhœa, tuberculosis and lung affections in both Infirmaries in 1908 :—

Diseases.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Malarial fever	11	21	11	6	12	7	5	4	6	5	11	11	110
Dysentery	1	...	1	4	2	3	...	...	1	...	1	...	13
Diarrhœa	7	5	...	4	4	...	...	1	4	7	2	2	36
Tuberculosis	1	1	...	...	...	...	...	...	...	...	...	...	2
Lung affections													
Asthma	1	2	...	...	1	1	1	...	1	...	4	...	11
Influenza ... Bronchitis ...	1	1	...	...	7	1	...	1	...	4	5	4	24

27. The greatest number of admissions took place, as generally observed, in the first quarter of the year ; but contrary to our usual experience the next in number was the last quarter, and the least the second.

On comparing the admissions of the summer months (November to April) with those of the cooler and comparatively healthy period of the year, we find that as usual (1907 excepted) there were more admissions (by 47) in the former than in the latter season. This difference would have been still more marked were it not for a small epidemic of mumps (13 cases) which broke out in August, September and October.

28. It is satisfactory to report that there was a reduction of 42 in the admissions for malarial fever as compared with those of the previous year.

There were 104 cases of the quotidian type, 4 of the tertian, 1 remittent and 1 pernicious. The last named case died within a short time of its admission. It occurred in the month of January. Malarial fever was generally prevalent during the first four or five months of the year, but it did not altogether disappear during the cooler months and there was a slight increase in November and December.

29. The correlation observed in the number of admissions for dysentery and malarial fever was again confirmed in 1908 by a reduction of 7 cases of the former disease corresponding with the reduction of the cases of malarial fever.

The disease was of a severe type and 4 deaths occurred.

The cases were distributed throughout the year, but the greatest number occurred in April, May and June.

30. 7 cases of Influenza occurred in May, the greatest number, however, took place in the last 3 months of the year. This unusual occurrence together with the recrudescence of fever in November and December contributed to the increase of the admissions into the Infirmaries in the last quarter, as already referred to.

31. 1 case of mumps occurred in August, 9 in September and 3 in October. It only affected male patients and at first chiefly those confined in the cell enclosure. One or two in the airing ground were subsequently attacked. Men of various ages were attacked, but chiefly the young.

The patients were isolated in their cells and the epidemic soon passed off.

It was on the whole very mild and no complications occurred in any of the cases. The contagion was probably brought into the Asylum by some of the attendants, as it was prevalent at the time in the vicinity of the Asylum.

32. One case of scurvy was again observed in the Asylum in a female patient who had some dislike for vegetables. She was treated with lime juice diet and soon recovered.

33. There were 4 surgical cases of some interest.

One case of fracture of left tibia in the lower third from a fall. The patient (a woman aged 45) was kept in bed with a Mc. Intyre's splint, and good union resulted although the patient was at times restless.

A case of strangulated hernia which occurred in an old man suffering from irreducible inguinial hernia. The patient was operated and made a good recovery.

A case of abscess of the liver which came on insidiously in a male patient confined in the cells. He had suffered from an attack of intermittent fever at the end of November 1907 and discharged after a few days treatment. On 14th. January 1908 he was again admitted for intermittent fever; but as this attack did not yield to quinine, suppuration of the liver was suspected and marked symptoms of abscess of the right lobe were soon detected.

The patient was operated on 2nd. February 1908 and about a pint of greenish yellow pus was let out. Collapse however set in about 6 hours after the operation and the patient died.

The last case was one of traumatic tetanus in a male patient who had accidentally trodden on a rusty nail. A small abscess had formed in his right heel. This was poulticed, opened and dressed antiseptically. It had healed up when, 9 days after symptoms of tetanus set in and the patient died.

III. Meteorological Conditions of the seasons and their probable effect with regard to sickness.

34. The average temperature of the summer as observed at the Lunatic Asylum was 76.4° F and of the cooler months 68.7. There was not much difference between the summer temperatures of 1907 and 1908, but that of the cooler months of the latter year was nearly 2° higher.

35. The following results were obtained with our raingauge in 1908 :—

	Number of inches of rain.
January	10....
February	4.60
March	14.63
April	2.27
May	1.19
June	1.24
July	1.74
August	2.57
September	.12
October	.50
November	1.40
December	5.62

The year was on the whole more rainy than the preceding one and the winter months warmer and less dry. The greatest rainfall took place in the months of January and March and the least in September and October.

36. The increased rainfall was accompanied by an increase in the cases of Influenza; this increase did not however occur, as usually observed, in the colder months, but at the end of the year.

The greatest number of cases of malarial fever coincided as usual with the most rainy part of the year. The cases of dysentery on the other hand were more prevalent in the months of April, May and June, i.e. at the end of the rainy period and the commencement of the cold season, when chills may have been a contributing factor.

IV. Other observations concerning the Institution.

37. The beneficial effects of the entire supply of Mare-aux-Vacoas water to the Institution for drinking and bathing purposes, which was effected at the Lunatic Asylum in 1908 may be exemplified by the reduction of the cases of dysentery in the Institution already pointed out. This improvement, as well as the suppression of a serious nuisance caused by the periodic overflow of our front garden reservoir, and greater attention paid by the Rose Hill and Beau Bassin Board in dealing with similar nuisances in our vicinity, have no doubt in a great measure contributed to the improved sanitary state of the Asylum.

38. It is to be regretted that the Sanitary Works for the drainage of the Institution which were commenced in 1906 are still in abeyance. It is to be hoped, however that as soon as practicable they will be taken in hand and satisfactorily completed.

39. There were only 2 escapes from the Asylum in 1908 as compared with 5 in 1907. One of the patients gave the slip to the attendants one afternoon and escaped over the walls. He was recaptured by a servant on the following day and brought back to the Asylum.

The other, a young woman who had almost completely recovered her mental faculties, cleverly escaped from the Female Infirmary one dark morning just as one of the doors had been opened and the attendant was answering the challenge of the night watchman. She had secretly made certain preparations for her escape on the previous evening and succeeded in getting away at a part of the outer enclosure where the walls are relatively low. Enquiries were made for her everywhere, but nothing was heard of her whereabouts till about 2 months after, when it was ascertained that she had taken refuge in a distant convent under an assumed name.

As she was then quite rational, she was discharged by the Central Board on probation to the care of her relatives.

40. 1,903 relatives and friends of the patients visited them in 1908. They were all satisfied with the treatment they had received in the Asylum and recorded the same in the Visitors' Book.

41. 12 meetings of the Central Board of Commissioners in Lunacy took place in 1908 to transact the business of the Institution and one visit was made to the Barkly Asylum, Lunatic Branch Wards.

The Board was satisfied with the treatment of the patients and the good order of the Asylum.

5 Surprise visits were made by the Director of the Medical and Health Department to the Asylum and satisfactory entries made by him in the Central Visitors' Book.

42. Two criminal lunatics, inmates of the Lunatic Asylum for some time, and who had recovered their mental faculties were recommended for discharge to the Governor on the more stringent conditions referred to in my last Annual Report. After their release they regularly reported themselves quarterly either to the Medical Superintendent or to the Central Board and up till the end of the year they had continued to be very rational and well behaved and to show no signs of relapse of their previous mental derangement.

43. One cinematograph and 2 gramophone performances were held in 1908. The female patients were frequently entertained by lady visitors, who played for them on the piano of the Institution and made them dance among themselves.

44. The daily average of lunatics who were employed in 1908 was as follows :—

	Gardening.	Trade.	Household work.
Males	21.54	16.84	41.15
Females	...	...	Washing 15.11 Wards 25.56 Sewing 9.50

The savings realised by Government in 1908 by the work of the lunatics and their attendants in the Asylum amounted to Rs. 5,893.77 against Rs. 5,618.04 in 1907 (Vide Annexure A).

There was an increase on the amount of vegetables raised in the garden and a larger amount of work expended on repairs of utensils and of clothing, but a reduction on washing, owing to a smaller amount of clothing supplied.

45. The average cost of the diets based on the average contract prices supplied by the Storekeeper General was as follows in 1908 :—

		Cost of each diet.
(1)	First class sick. (For Europeans and better class of patients) ...	R. 0.43.15
(2)	First class normal. (For the same class of patients)	0.60.85
(3)	Second class sick. (For natives)	0.46.14
(4)	Second class normal. (For natives)	0.28.80

The average prices ruling being practically the same as in 1907, there was no appreciable change in the cost of the diets.

I append a copy of these diets giving the prices of each article as worked out by the Steward and Accountant (Vide Annexures B & C).

J. I. PADDLE,

Medical Superintendent,
Lunatic Asylum.

9th. April, 1909.

ANNEXURE A.

Statement of works, &c., done by the attendants and patients of the Government Lunatic Asylum during the year 1908.

Description of work.	Quantity.	Contract price or estimated cost.	Amount.		Total.	
			Rs.	c.	Rs.	c.
Garden.	Kilos.					
Green Brèdes	6,728.	R. 0.08 per kilo.	538	24	...	...
Potherbs	2,293.200	.14 ,,	321	04	...	...
Love-apples	6.300	.12 ,,	...	75	...	...
Arrow-root	24.	.30 ,,	7	20	867	23
Masonry.						
Dry walls	72 feet	Estimated	24	...	...	...
Repairs to drains, &c.,	...	do.	95	...	119	...
* *Tinware.*						
New utensils	...	do.	184	34	...	...
Repairs	...	do.	163	50	347	84
Carpentry.						
Repairs to tables, forms, &c.,	...	do.	45	...	45	...
Bedding and Clothing.						
Making of new mattresses	79	R. 0.50 each	39	50	..	...
,, pillows	24	.25 ,,	6	...	...	...
Repairs and remaking of old mattresses	450	.50 ,,	225	...	...	...
,, ,, pillows	267	.25 ,,	66	75	...	...
Repairs to strait jackets	228	.20 ,,	45	60	...	...
,, clothing	40,327	.05 ,,	2.016	35	2,399	20
Sundries.						
Straw hats	170	R. 0.25 each	42	50	...	...
,, repairs to	50	.05 ,,	2	50	...	...
* Washing	185,407	1.43 o/o	2,070	50	2,115	50
* *After deducting cost of materials.*				Rs.	5,893	77

ANNEXURE B.

First Class Sick— 1908.

Articles of Diet.	Amount of Diet.	Quantity per 100 Diets.	Price per kilo.	Value of 100 Diets.		Remarks.
				Rs.	c.	
Beef	Kil: 0.225 grs.	Kil: 22.500	Rs. 1.20	27	...	
Bread	,, .340 ,,	,, 34.	.18.70	6	35.80	
Milk	1 litre	100 litres	.08	8	...	
Sugar	Kil: 0.045 grs.	Kil: 4.500	.16.02	...	72.09	
Tea	,, .008 ,,	,, .800	1.34	1	07.20	
				43	15.09	

ANNEXURE B.—(*Continued*).

First Class Normal.

Articles of Diet.	Amount of Diet.	Quantity per 100 Diets.	Price per kilo.	Value of 100 Diets.		Remarks.
Beef ...	Kil : 0.225	Kil : 22.500	Rs. 1.20	27	...	
Bread ...	„ .450	„ 45.	.18.70	8	41.50	
Butter ...	„ .030	„ 3.	1.50	4	50.	
Fresh Fish ...	„ .225	„ 22.500	.53.33	11	99.92	
Milk ...	Lit. 0.25 Centil.	Lit. 25.	.08	2	...	
Potherbs ...	Kil : 0.110	Kil : 11.	.10	1	10.	
Potatoes ...	„ .225	„ 22.500	.18	4	05.	
Sugar ...	„ .045	„ 4.500	.16.02	...	72.09	
Tea ...	„ .008	„ .800	1.34	1	07.20	
				60	85.71	

ANNEXURE C.

Second Class Sick—1908.

Articles of Diet.	Amount of Diet.	Quantity per 100 Diets.	Price per kilo.	Value of 100 Diets.		Remarks.
				Rs.	c.	
Beef ...	Kil : 0.225 grs.	Kil : 22.500	Rs. 1.20	27	...	
Bread ...	„ .340 „	„ 34.	.18.70	6	35.80	
Milk ...	1 litre	Lit : 100	.08	8	...	
Rice ...	Kil : 0.225 „	Kil : 22.500	.17.27	3	88.57	
Sugar ...	„ .023 „	„ 2.300	.16.02	...	36.84	
Tea ...	„ .004 „	„ .400	1.34	...	53.60	
				46	14.81	

Second Class Normal.

Articles of Diet.	Amount of Diet.	Quantity per 100 Diets.	Price per Kilo.	Milk days.		Fish days.		Remarks.
				Rs.	c.	Rs.	c.	
Bread ...	Kil : 0.225 grs.	Kil : 22.500	Rs. 0.18.70	4	20.75	4	20.75	
Butter ...	.010	1.	1.50	1	50.	1	50.	Milk days :
Fresh Fish ...	.225	22.500	.53.33	...	...	11	99.92	3 times a week.
Milk ...	75 & 13 Centil.	75 & 13 litres.	.08.	6	...	1	04.	Fish days :
Dholl ...	Kil : 0.060	Kil : 6.000	.15.38	...	...	...	92.28	4 times a week.
Salt Fish ...	.060	6.	.33.32	...	...	1	99.92	
Potherbs ...	.110	11.	.10.	...	...	1	10.	
Rice ...	.450	45.	.17.27	7	77.15	7	77.15	Average cost
Sugar ...	.023	2.300	.16.02	...	36.84	...	36.84	per patients
Tea ...	.004	.400	1.34	...	53.60	...	53.60	R. 0.28.80.
Potatoes ...	.225	22.500	.18	4	05.	...	...	
Green Brèdes ...	.120	12.	.07	...	84.	...	...	
				25	27.34	31	44.46	

ANNEXURE IX.

Report of Dr. J. I. PADDLE, Government Analyst.

The work of the Government Analyst in 1908 had reference to 57 medico-legal analyses and examinations performed at the request of the District Magistrates for the Judicial Department, and to 90 analyses and reports required by the Medical and Health Department and by other branches of the Public Service of the Colony.

The number of separate articles or pieces of conviction examined for the Judicial Department amounted to 258, and those for the other Departments to 139 ; making a total of 397, or an increase of 14 on those performed in 1907.

2. The number of investigations for the first named Department was 3 less than in the previous year, and 41 fewer articles were received. On the other hand there was an increase of 36 in the analyses and reports required by the Medical and Health and other Departments, and of 55 in the articles received therefrom.

3. A few improvements have, during the year, been made in the laboratory, and some useful apparatus and valuable books of reference received; but the want of a skilled servant permanently attached to the place continues to be felt.

The services of the servant of the Lunatic Asylum who was to help in the laboratory have not always been available, and as a consequence, coupled with the increase of work in the laboratory and time lost in an increased number of attendances in Court, the usual delays in the transmission of reports on certain articles sent up for examination, have necessarily resulted.

Analyses performed for the Judicial Department.

4. The investigations required for this Department were performed at the request of the Magistrates of the following districts :—

Districts.	Number of investigations.	Number of articles examined.
Port Louis	10	41
Plaines Wilhems	8	23
Grand Port	11	96
Pamplemousses	4	24
Moka	6	18
Flacq	5	24
Rivière du Rempart...	4	9
Black River	4	7
Savanne	4	11
Oil Islands	1	5
Total ...	57	258

5. The criminal cases in which they were required were as follows :—

Criminal cases.	Number of cases.	Number of articles examined.
Murder	9	100
Attempt at murder	4	35
Rape...	13	48
Attempt at rape	1	1
Infanticide	1	3
Concealment of birth	1	1
Larceny with wounding	2	4
Sodomy	2	8
Bestiality	1	2
Poisoning or alleged poisoning	11	34
Illicit distillation	10	20
Illicit possession of gunjah	1	1
Milk contravention	1	1
Total ...	57	258

6. There was a reduction in the number of articles received in cases of rape and attempt of rape, but a large increase (more than 50 o[o) in those of murder and of attempt at murder, the greatest number of which (78) were sent from the District of Grand Port.

7. Well marked blood stains, of blood with red corpuscles similar to those of mammals, were found by microscopical examination in the majority of the articles received.

8. In a case of attempt at murder and in one of larceny with wounding in which fire-arms had been used, the probable distance at which these arms had been fired could be inferred by well-marked, more or less circular greyish brown stains on the garments of the victims around the places at which the bullets had entered. These stains were found under the microscope to consist of projections of unburnt fragments of the charcoal contained in the gun-powder of the charge and to partial charring of the material of the garments. Previous experiments I had made in connection with this subject (as stated in my report for 1906) showed that, judging from the size and appearance of the stains, the pistols had been fired at close quarters, within a distance of about 6 inches at furthest.

9. In a case of infanticide in which a full born child was alleged to have been carried in a vacoa hand bag (tente) and exposed to die in a cane-field, additional circumstantial evidence was obtained by the examination of the interior of the tente in which I found traces of meconium and of mammalian blood.

10. The cases of rape and attempt at rape presented no unusual medico-legal interest, except one in which there was evidence of the accused having communicated gonorrhœa to the victim ; well-marked gonococci were found in the clothes of the victim as well as in those of the accused, by Nicol's modification of Gram's method of staining.

11. In the cases of poisoning or alleged poisoning, a definite poison was only found in two of the cases.

In one of the alleged cases in which a plate of soup was sent up for analysis owing to a bitter taste which had been noticed therein, the supposed poison was found, as in a similar case reported upon in 1907, to be bile from the gall bladder of the fowl, which had not been properly removed by the cook.

In one of the cases in which death was alleged to have resulted from excessive drinking, the mucous membrane of the stomach was found to be congested and a large quantity of alcohol and of wine contained therein. No other poison had been simultaneously administered.

One of the cases of poisoning was interesting from the fact that the victim, a chinaman aged about 24 years, had himself come to the Police Station to make a declaration to the effect that his concubine had poisoned him. He had produced a phial containing a white substance and a plate of cooked rice and dholl. He was immediately sent to hospital and he died eleven hours after his admission. The phial, plate of food and stomach of deceased were sent up for analyses and found to contain arsenious acid.

12. An improvement in the transmission of organs by the Police in cases of poisoning was effected last year. I had reported sometime ago that forwarding such organs for analysis, in ordinary pickle jars, tins and even brass lotahs, provided with indifferent corks or simply covered over with brown paper, was very unsatisfactory from a medico-legal point of view, and I had recommended the use of large glass specimen jars and bottles with ground glass stoppers or glass covers pressed down on india rubber rings by means of a clamp and screw. A sufficient number of such bottles and jars have been received and are now kept in readiness in the principal Police Stations of the Island.

13. The number of cases of illicit distillation in which samples of "wash" were received rose from 5 to 10 last year, and the samples analysed from 14 to 20. Some of the stills produced in Court as having been used by the illicit distillers, appeared to be of primitive construction—while others, especially one found in the hands of a chinaman, were very ingenious and capable of acting as excellent rectifiers of the rum distilled.

Analyses performed for the Medical and Health and other Departments.

14. The following analyses and reports were required by these Departments :—

Departments.	Number of analyses or reports.	Number of articles.
Colonial Secretary	1	1
Receiver General	6	12
Medical and Health	25	44
Sanitary Warden and Additional Sanitary Wardens	23	37
Collector of Customs	2	2
Government Medical Officers of Plaines Wilhems and of Moka	4	4
Barkly Asylum	21	24
Lunatic Asylum	8	15
Total...	90	139

15. The analyses and reports referred to the following articles or subjects :—

Articles or subjects.	Number of articles or analyses.	Number of articles or subjects.
Milk	34	58
Condensed milk	1	1
Water	2	4
Wine	3	3
Salt fish	3	5
Corned beef	1	1
Rice	1	1
Flour	1	1
Bread	1	2
Starch	1	2
Truffles	1	2
Mustard oil	3	3
Pistachio oil	3	4
Colonial salt	1	1
Rum	7	14
Manihot, arouï (taro) and sweet potatoes ...	1	1
Petroleum	1	1
Linseed meal	1	3
Chloroform	1	1
Carbide of calcium	1	1
Gunjah	1	1
Urine (quantitative analysis of sugar, albumine, &c.)	14	22
Pathological specimens (tumour, pus, blood, sputa, ankylostomata, mycetoma) ...	7	7
Total ...	90	139

16. There was an increase of 12 in the milk analyses performed and of 20 in the samples received. The majority of the samples (41) were found to have been diluted with water, the amount added varying from 10 to 30 o/o—7 had been skimmed and 3 both skimmed and watered—6 were normal, the non fatty solids and the butter exceeding 8.5 o/o and 2.5 o/o respectively. In one of these samples the butter reached 3 o/o and in another 3.1 o/o showing that in the milk of cows kept in this Colony, even when owned by Indians, a proportion of butter similar to that insisted upon in England may be obtained, if the animals are fairly well fed.

A form of adulteration which was a favourite one with certain contractors sometime ago, viz : that of watering, and raising of the density of the milk by the addition of a small proportion of cane sugar, was again revived by a sub-contractor last year. Such a sample supplied by him to the Lunatic Asylum was found to be sweetish in taste and to have the following composition :—

Specific gravity at 15 ° C.	1,030	
Total solids	9.69	o/o
Fat	1.58	„
Non fatty solids	8.11	„
Cane sugar	1.84	„
Non fatty solids free from cane sugar	6.27	„

Taking 8.5 o/o as the minimum adopted for non fatty solids by the Board of Agriculture of England and the Society of Public Analysts, the amount of cane sugar free non fatty solids indicated watering to the extent of at least of 26 o/o. The low percentage of fat also showed marked skimming. A few similar samples were received about the same time from the other public Institutions, and on this sub-contractor being changed no further adulterations of the same nature were repeated.

17. A case of watering of milk " through the cow " came to my notice last year under the following circumstances. A sample taken by a Sanitary Inspector from the can of a milk seller as he was hawking it about was found to have a specific gravity of 1,026. 5 at 15 ° C. while that of a sample drawn from the man's cow was 1,029. The first sample only was sent for analysis, the bottle of that taken from the cow having unfortunately been accidentally broken, and the man unwilling to supply another. I reported watering to the extent of 15 to 20 o/o (the non fatty solids being only 7.11 o/o and the fat 2.06 o/o.) The milk seller was prosecuted, but as he pleaded not guilty, the District Magistrate obliged him to have his cow milked in the presence of the Sanitary Inspector and of a policeman. When, however, they arrived on his premises, he stated that the cow refused to give her milk and that they must return in two hours hence. The milk which was then drawn was manifestly abnormal, for it had a specific gravity of 1.024 and presented all the characters of a watered milk, as shown by the following analysis :—

Total solids ...	9.16	o/o
Fat ...	2.69	„
Non fatty solids ...	6.50	„

It was even inferior, as regards the non fatty solids, to the milk the man had originally hawked about. As the Inspector had made quite sure that the can was empty previous to the milking, the apparent watering of the milk must have been effected by the man giving his cow a large quantity of water to drink a short time before the arrival of the Inspector. When the case came again before Court, it was dismissed, the Magistrate not being satisfied that the milk hawked about by the man was not the natural product of his cow.

This case again points to the necessity of having the word " milk " clearly defined in the law as the *normal* secretion of the cow, and of adopting the standards of non fatty solids and of fat which I have so often advocated, i.e., 8.5 o/o and 2.5 o/o respectively.

18. Two samples of starch alleged to be pure arrowroot were examined microscopically and found to consist of manihot starch. This is a frequent substitution made by unscrupulous sellers in this Colony, as it is not easily detected except by the microscope.

19. A sample of chloroform was analysed for the purpose of ascertaining whether it was pure and fit to be administered without danger as an anæsthetic.

The chloroform contained in a Lilburne's 2 oz sealed flask had a specific gravity of 1.494 at 15 ° C. It was found to be free from chlorine, hydrocarbons, chlorinated oils, aldehydes and acetone. It only left traces of deposit on evaporation and contained a very small proportion of ethylic alcohol. As the latter is necessary for the prevention, to a certain extent, of the oxidising effects of the air in contact with the liquid under the influence of light, its presence in small quantity was not considered objectionable. Being free from hydrocarbons and chlorinated oils, which are the two more or less dangerous impurities in chloroform of inferior quality, the sample was considered as practically pure and fit to be used as an anæsthetic.

20. Among the instruments ordered for the Laboratory an excellent Abel's petroleum flash test apparatus was received, and it has already proved invaluable for the examination of a sample of petroleum of doubtful quality received last year.

21. A few samples of rum, alleged to have been adulterated with denaturated alcohol were sent for analysis by the Receiver General's Department. The rum was shown to have been imperfectly rectified. A sample of rum was also received for analysis from the same Department, which was alleged to consist of alcohol " chemically pure " and to have been prepared by a certain process from denaturated alcohol. The sample was shown to have still a sufficient taste and smell of crude methylic alcohol to render its recognition a matter of no great difficulty to any one drinking it.

22. An analysis which gave rise to some controversy was that of a quantity of salt cod fish which had been rejected at certain Government Institutions and which was alleged to be fit for human food notwithstanding the fact that it was in a friable condition and that it evolved ammonical fumes.

The analysis showed that the samples swarmed with saprogenic bacteria, amongst which the *proteus vulgaris* was predominent, certain ptomaines were also extracted therefrom, and, experimented on a frog and on a sparrow, they appeared to produce effects similar to those of butylamine and amylamine, subtances causing stupor, vomiting, tremors, and even, convulsions, which Armand Gautier and Mourgues had extracted from certain kinds of cod liver oil. Although the experiments showed that the ptomaines found in the fish were not absolutely poisonous in small quantities, there was evidence at any rate that some physiological disturbance resulted from their administration to animals and that they were to a certain extent *noxious*.

The report accordingly recommended the rejection of the cod fish as unsuitable for use in Government Institutions, and, in the interest of the public health, its not being allowed to be sold to the public.

23. Lastly I was asked for a report on the quantities of manihot, sweet potatoes and arouï (taro) which corresponded in nutrive value with 100 grammes of rice, as it has been proposed to substitute these substances for the last named article in the diet of prisoners.

The proximate elements of the first three substances, analysed by Mr. Boname at the Station Agronomique and kindly supplied by him, are as follows :—

	Proteids.	Fat.	Carbohydrates.	Salts.	Cellulose.
	—	—	—	—	—
Manihot ...	1.42 o/o	.17 o/o	36.93 o/o	.91 o/o	1.22 o/o
Sweet potatoes ...	1.23 „	.48 „	24.28 „	1.03 „	.85 „
Arouï violette* ...	2.62 „	.12 „	28.33 „	1.26 „	.97 „

Those of rice and maize, given in Parkes' Hygiene, are the following :—

Rice ...	5 o/o	8. o/o	83.2 o/o	.5 o/o
Maize ...	10 „	6.7 „	64.5 „	1.4 „

100 grammes of rice, correspond (as regards the proportion of starch) to the following quantities of :—

	Grammes.		Proteids.	Cellulose.
	—		—	—
Manihot ...	225	containing	3.20 grammes	2.74 grammes
Sweet potatoes ...	342	„	4.21 „	2.91 „
Arouï Violette ...	293	„	7.67 „	2.84 „

---

* Probably the same as the taro of the West Indies, or the kalo of the Hawiian Islands (Colocasia Antiquorum, Var. esculenta).

A proportionately greater weight of these substances has therefore to be taken (owing to the heavy percentage of water they contain) to represent 100 grammes of rice.

Taking the starch as the standard of comparison these quantities will show a slight reduction in the proteids in the first two articles and a surplus in the arouï. All of them will besides contain about 3 grammes of cellulose, a constituent which may render them less easy of digestion than rice.

Judging, however from the quantities of these articles which Indians, who are accustomed to their use, can eat, 500 grammes of manihot and of arouï violette and 375 of sweet potatoes are the utmost weights of each article which can be eaten daily by an adult without inconvenience.

As these quantities would only correspond with 220, 164 and 110 grammes of rice they would obviously be insufficient in their nutritive elements for a prisoner, and the diet would have in consequence to be completed either by an addition of rice or an equivalent amount of ground maize.

J. I. PADDLE,

2nd. May, 1909. Government Analyst.

ANNEXURE X.

Report of Dr. J. E. Blackburn, Plague Authority.

During the year 1908, 167 cases of plague were registered in the Colony. This is the lowest annual case incidence recorded ever since the disease broke out in 1899. The death-rate, however, was higher than that of the previous year by 2.5 o/o and above the mean for the last 10 years by 5.34 o/o.

Years.	Total number of cases.	Number of recoveries.	Number of Deaths.	Death-rate per o/o.
1899	1,416	299	1,117	78.9
1900	796	203	593	74.5
1901	1,093	288	805	73.7
1902	506	120	386	76.3
1903	1,395	360	1,035	74.2
1904	568	119	449	79.0
1905	308	57	251	81.5
1906	434	90	344	79.3
1007	224	46	178	79.5
1908	167	30	137	82.0
Total...	6,907	1,612	5,295	76.66

The Colony was free from the disease during the months of January and April. Sporadic cases were detected in February, March, May, June and July. The epidemic proper began in August when 9 cases were recorded and had subsided in January 1909.

The following table shows the monthly incidence of the disease in the Island during the year under review. Four distinct foci had to be dealt with, viz:—

Months.	Port Louis.		Pamplemousses		P. Wilhems.		Savanne.		Total.	
	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.
January ...	...	...	...	...	...	...	...	...	...	...
February ...	1	3	...	...	...	...	...	...	1	3
March ...	1	...	...	...	...	2	...	...	1	2
April	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	1	...	...	...	1
June	...	...	...	...	...	...	1	3	1	3
July	...	2	...	...	...	...	...	...	...	2
August ...	1	8	...	...	...	...	..	...	1	8
September ...	...	12	...	1	...	...	...	...	...	13
October ...	7	26	...	1	...	...	...	...	7	27
November ...	12	42	...	1	...	...	...	...	12	43
December ...	1	19	6	13	...	3	...	...	7	35
Total ...	23	112	6	16	...	6	1	3	30	137
	135		22		6		4		167	

The microscope was used in almost every case to settle the diagnosis of plague.

The outbreak in the district of Pamplemousses originated at "The Mount" estate and rapidly extended to Mon Goût, a small camp close by, while in the district of Savanne it originated at, and was confined to, Souillac.

In both instances the infection was most likely conveyed from Port Louis as the first persons to be affected were carters or men who worked in the stores.

These outbreaks rapidly subsided on the usual plague measures being carried out.

The seizures in the district of Plaines Wilhems occurred at Curepipe.

The detection of dead rats previous to and during the occurrence tend to show that the outbreak was due to the revival of an old focus.

As a rule dead rats were found in different stages of putrefaction in all plague-infected buildings and areas.

RACE INCIDENCE.

The following table shows the cases arranged in accordance with the usual classification, the death-rate and sex are also shown for each class of the population :—

Denomination.		Cured.	Died.	Death per cent.	Total cured.	Total died.	Total death per cent.
Mauritians white	male ...	1	2	66.6	2	2	50.0
	female ...	1	...	...			
Mauritians non-white	male ...	2	16	86.7	4	24	85.7
	female ...	2	8	80.0			
Indians	male ...	13	65	83.3	23	101	81.4
	female ...	10	36	78.3			
Chinese	male ...	1	10	90.9	1	10	90.9
	Total ...	30	137	82 o/o	30	137	82 o/o

As usual, the seizures were highest among the Indians, the non-white section of the general population coming next, while a notable decrease among the Chinese was observed.

Four cases were registered among members of the white population, a high incidence as compared with that of the previous year.

Compared with 1907, and as shown in the comparative statement hereunder, there was a marked decrease in the incidence among the non-white Mauritians but a higher death-rate (13.3 o/o) ; although the reverse took place among the Indians yet the death-rate remained the same :—81.1 and 81.4 o/o for 1907 and 1908 respectively.

Denomination.	1907.		1908.	
	No. of cases.	Proportionate No. of attacks.	No. of cases.	Proportionate No. of attacks.
Mauritians white	1	½ o/o	4	2½ o/o
Do. non-white ...	76	34 o/o	28	17 o/o
Indians	127	57 o/o	124	74 o/o
Chinese	20	9 o/o	11	7 o/o
Total ...	224		167	

The incidence as well as the death-rate among the Chinese were lower than in the previous year by 2 o/o and 4 o/o respectively.

AGE INCIDENCE.

The following table gives the number of cases at the different age-periods as well as the number of deaths and the mortality.

Age-periods.	No. of cases.	No. of deaths.	Mortality o/o.
Under one year	2	1	50.0
From 1 to 5 years	12	10	83.3
„ 5 to 10 „	13	11	81.5
„ 10 to 15 „	24	20	83.3
„ 15 to 30 „	49	41	83.7
„ 30 to 50 „	45	33	73.3
„ 50 to 65 „	11	10	90.1
„ 65 to 80 „	2	1	50.0

The largest number of cases, as has been the experience since 1899, occurred among persons between the ages 15 and 30.

The age-periods 5 to 10 and 30 to 50 had proportionately a larger number of cases in 1908 than in 1907, while the figures for the other periods remained pretty nearly the same in both years.

Nine cases are not accounted for, owing to lack of sufficient data. These cases were found dead or *in extremis* and no information could accordingly be obtained.

SEX INCIDENCE.

The following comparative statement gives all the particulars as to sex incidence :

Sex.	1907.				1908			
	Cured.	Died.	Total.	Death per cent.	Cured.	Died.	Total.	Death per cent.
Males	26	111	137	80.3	17	93	110	84.5
Females ...	20	67	87	77.0	13	44	57	77.2
Total ..	46	178	224	79.5	30	137	167	82.0

Males were more commonly affected in both years ; the death percentage among them was higher in 1908 than in 1907.

A reduction of 4.7 o/o was noticed among the females in 1908, while the death-rate remained pretty nearly the same.

TYPE OF THE DISEASE AND REGION OF BUBOES.

The number of plague cases detected during the year under review were classified into the following types :—

Bubonic	148 cases
A-bubonic	4 „
Pneumonic	5 „
Septicœmic	3 „
	160 cases.

No information could be obtained concerning seven fatal cases treated at home by private medical practitioners.

All the cases returned under the three last mentioned headings ended fatally.

The following statement shows the situation of the buboes in cases of the first type :—

Situation of buboes.		Cured.	Died.	Death-rate o/o.	Total cured.	Total died.	Grand death-rate o/o.
Femoral	right...	5	35	87.5	8	57	87.7
	left ...	3	22	88.0			
Inguinal	right...	5	15	75.0	12	30	71.4
	left ...	7	15	68.2			
Axillary	right...	1	11	91.7	7	19	73.1
	left ...	6	8	57.1			
Cervical	right ..	1	2	66.6	2	7	77.7
	left ...	1	5	83.3			
Multiple ...	...	1	5	83.3	1	5	83.3

From the above it will be seen that :—

1o. The region most commonly affected was, as in former years, the femoral ; the right side of the body more generally so.

2o. The death-rate is about the same for patients affected with buboes in one or other side in this region of the body.

3o. The death-rate for patients with buboes in the femoral region was 87.7 o/o for the year under review, which figure is higher than that of 1907 by 14.5 o/o.

4o. The cases with buboes in the inguinal region, although less numerous than those in the femoral one, had a lower death percentage, more recoveries were recorded among patients affected in the left side of the body.

5o. Of the 26 cases with axillary buboes 7 recovered, giving a death-rate of 73.1 o/o the figure for 1907 being 72.3 o/o.

It is to be observed that out of 14 cases with buboes on the left side, 6 recovered—a percentage of recovery which has not been recorded up to now in Mauritius—whilst almost all the cases with buboes on the right side died (11 deaths out of 12 cases).

6o. Compared with 1907, fewer cases with buboes in the cervical region were detected and the death-rate, 77.8 o/o, stands far below that of the previous year when it was 85 o/o.

7o. Double buboes in the abovementioned region were not recorded during the year, on the other hand, multiple buboes were more frequently met with in 1908 than in 1907 :—6 cases out of 167 being recorded in 1908 against 4 out of 224 in 1907.

One patient only with multiple buboes effected a recovery during the year covered by this report.

LAZARETS.

With a view to reducing the expenditure on that head, the Lower Plaines Wilhems lazaret was not opened during the year and the Bois Savon establishment was closed on December 22nd.

In order to accommodate patients coming from the districts of Port Louis and Plaines Wilhems, the Grand River North West Lazaret was opened on that date and up to the end of the year two patients only, one from Port Louis and the other from Plaines Wilhems as well as seven contacts were admitted into this institution.

Sixty-two patients and one hundred and seventy-five contacts were cared for at the Bois Savon hospital and segregation camp from the beginning of the year to the closure of the establishment.

Three patients and seven contacts were admitted into the Riambel lazaret, Souillac, and 3 patients treated at the Civil Hospital, making thus a total of 70 patients and 189 contacts attended to in Government establishments.

It results from the following statement that the number of patients admitted into the Bois Savon hospital was about the same in 1907 and 1908.

Denomination.		1907.					1908.				
		Admitted.	Cured.	Died.	Died within 24 hours.	Death-rate deducting deaths within 24 hours.	Admitted.	Cured.	Died.	Deaths within 24 hours.	Death-rate deducting deaths within 24 hours.
Adults	male ...	34	10	24	12	54.5	31	6	25	9	72.7
	female...	20	9	11	3	47.0	16	7	9	2	50.0
		54	19	35	15	51.2	47	13	34	11	63.8
Children	male...	9	5	4	2	28.5	13	7	6	4	22.2
	female	5	3	2	...	40.0	2	1	1	...	50.0
		14	8	6	2	33.3	15	8	7	4	27.2
Total ...		68	27	41	17	47 o/o	62	21	41	15	55.3 o/o

The lazaret death-rate was 55.3 o/o showing an increase of 8.3 over the figure of the previous year. This greater mortality may be ascribed to a higher disease potential as evidenced by the higher total death-rate of the disease in 1908 already referred to, and also to the advanced period of illness at which most of the patients were admitted, 15 dying within 24 hours of admission and six within less than 36 hours.

As usual the mortality was higher among adults than children.

Nineteen patients were treated at home by their private medical attendants of which 14 died—death-rate 73.7 o/o.

PREVENTIVE MEASURES.

Inoculation with anti-plague serum.—Anti-plague serum was not resorted to as a prophylactic during the year under review. One Chinese family composed of 29 members (20 adults and 9 children) were however inoculated at their own request, by their private medical attendant, on the detection of a plague case in the vicinity of their house.

One direct contact only, a female, availed herself of the privilege conferred by Regulation No. 180 of 1904. She was preventively inoculated and kept under medical surveillance for 5 days.

Disinfection.—Cleansing and disinfecting operations were carried out as usual and the following tables show the work done in this branch of the plague service during the year under review as well as in the previous one so as to allow of comparison.

The total number of premises dealt with was 2,562 showing an increase of 343 on the figure for 1907 while the total number of rooms, cellars, garrets, &c., disinfected rose from 29,826 in 1907 to 40,348 in 1908.

No. of premises disinfected on account of	1907.	1908.
Human plague	188	155
Suspected human plague	4	9
Infected area preventively	1,102	1,873
At occupiers' request	324	464
Dead animals	445	331
Plague-infected rats	87	172
,, suspected rats	51	52
Other infectious diseases	18	6
Total ...	2,219	2,562

Details.	1907.	1908.
Rooms	15,919	24,503
Cellars	7,576	6,881
Garrets...	654	573
Yards	380	1,352
Privies	1,167	2,045
Kitchens	1,143	1,643
Stores	553	596
Stair-cases	496	584
Balconies	403	359
Verandahs	587	610
Stables...	189	120
Shops...	240	335
Bath-rooms	478	602
Sheds...	41	145
Total ...	29,826	40,348

During these operations 779 rat and mouse carcases in different stages of putrefaction and mummification were detected in plague-suspected houses while only 110 were removed from plague-infected ones, making a total of 889 carcases removed during the course of disinfection. This figure shows a decrease of 293 on that of 1907.

Carcases of rats were, as usual, found in greater number that those of mice.

Twenty-two dead cats were also found during the course of these operations in suspected premises and only one in a plague-infected house.

As many as 464 disinfections were applied for by private parties while 32 notices under Ordinance No. 47 of 1898 had to be served on owners and occupiers to allow that measure to be carried out on their premises.

This number of compulsory disinfection clearly shows that certain classes of the population are not yet fully alive to the necessity of having their houses cleansed as soon as dead rats or an invasion of fleas are detected, thus favoring an increase in the incidence of plague.

DESTRUCTION OF RODENTS.

The systematic destruction of rodents was carried on with unabated vigour during the period covered by this report. The total number of the vermin thus destroyed was 172,504 showing an increase of 46,946 over the figure for 1907.

In Port Louis, the number of rodents entrapped and poisoned by the departmental gangs of ratcatchers as well as the number of those brought to this office for the 10 cents premium amounted to 81,958 as under :—

	Rats.	Mice.	Musks.	Total.
Entrapped	43,736	19,313	9,530	72,579
Poisoned	5,256	2,615	1,105	8,976
Brought up for premium ...	285	116	2	403
Total ...	49,277	22,044	10,637	81,958

This total compares favorably with that of 1907 which was 80,826.

43,022 or 59.3 o/o of the rodents entrapped were females corroborating the experience of previous years that females are found in greater number than males.

Of the females caught it was ascertained that 1,404 were in the gravid state. This figure shows a decrease of 602 when compared with that of the previous year. The number of fœtuses,—8,456,—removed from these gravid females also shows a decrease.

The following statement gives in detail the information embodied in the foregoing paragraphs.

Details.		Rats.	Mice.	Musks.	Total.
Gravid Females	1907	1,190	724	92	2,006
	1908	704	587	113	1,404
	decrease ...	......	......	......	602
Fœtuses ...	1907	8,900	4,108	226	13,234
	1908	4,845	3,367	244	8,456
	Decrease ...	......	......	......	4,778

The largest monthly number of rodents was destroyed in June (8,600) while in 1907 this took place in July (9,718).

As many as 895,850 baits poisoned with Common Sense Exterminator, Rough-on-rats, Grosboisine, Barton's Exterminator and Mushicide, were deposited in Port Louis on private premises, Government establishments, camps, docks, lodging houses, Crown and waste lands, drains, &c., and in the bushes at Vallée des Pretres, Vallée Pitot, Vallée du Pouce, Roche Bois, Cassis, &c., and 8,976 rodents were collected in these places by the men entrusted with such work. The searches made for dead rats in the bush were not always attended with satisfactory results.

PLAGUE INFECTION AMONG RODENTS.

The number of rodents microscopically examined for plague bacilli as well as the infection rate are shown in the following table :—

For the sake of comparison the corresponding figures of 1907 are also given.

Year.	Rodents.	Number examined.	Percentage of infection.
1907	Rats ...	5,188	1.3
	Mice ...	5,991	1.1
	Musks ...	809	0.2
	Total ...	11,988	0.9
1908	Rats ...	5,223	2.5
	Mice ...	5,536	1.7
	Musks ...	759	1.0
	Total ...	11,518	1.7

The largest number of infected rodents was found in October—64—(35 rats and 29 mice). Four musks were found infected in November out of 133 examined.

The following statement shows that the monthly number of human plague cases in Port Louis are not in direct proportion with that of infected rodents found :—

Months.	No. of infected rodents.	No. of human cases.
January	2	nil
February	3	4
March	6	1
April	13	nil
May	13	nil
June	8	nil
July	6	2
August	19	9
September	48	12
October	64	33
November	36	54
December	16	20
Total	234	135

but that as has repeatedly been observed a rise in the rat epizootic precedes the outbreak among human beings and that after running roughly parallel with human plague for some time rat plague subsides at an earlier date.

FINANCES.

When plague broke out in 1899, it was found necessary to have a special vote of the Legislature to meet the expenditure necessary to combat the disease. This special vote has been gradually diminished.

The table hereunder shows the yearly expenditure on that heading :—

Financial period.	Amount.	
1899 (from onset of plague to 31.12.99)	562,413	53
1900 (January to December)	339,039	88
1901 (January to June)	116,476	85
1901–2 (July to June)	288,323	34
1902–3 "	197,221	20
1903–4 "	325,146	85
1904–5 "	173,417	10
1905–6 "	152,276	76
1906–7 "	162,093	99
1907–8 "	129,568	63
1908–9 "	110,459	61

J. E. BLACKBURN,

Plague Authority.

Seamen's Hospital Society
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